



NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

**EMOTIONAL INFLUENCE CONSIDERATIONS IN
MARINE EXPEDITIONARY FORCE (MEF)
OPERATIONAL PLANNING**

by

William C. Hughes III

June 2021

Thesis Advisor:
Second Reader:

Steven J. Iatrou
Christopher Paul (RAND)

Approved for public release. Distribution is unlimited.

THIS PAGE INTENTIONALLY LEFT BLANK

REPORT DOCUMENTATION PAGE			<i>Form Approved OMB No. 0704-0188</i>	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE June 2021	3. REPORT TYPE AND DATES COVERED Master's thesis		
4. TITLE AND SUBTITLE EMOTIONAL INFLUENCE CONSIDERATIONS IN MARINE EXPEDITIONARY FORCE (MEF) OPERATIONAL PLANNING			5. FUNDING NUMBERS	
6. AUTHOR(S) William C. Hughes III				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A			10. SPONSORING / MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release. Distribution is unlimited.			12b. DISTRIBUTION CODE A	
13. ABSTRACT (maximum 200 words) Every action is perceived by an audience that is subsequently influenced through the exposure to the action. This audience can be composed of declared and armed combatants, members of an extremist group, allies, or civilians. The possible end states for the influenced target audience are (a) behavior change, (b) belief change, (c) maintain current behavior, or (d) maintain current belief. It is a missed opportunity by the Marine Corps to not best posture itself to shape those outcomes, or at the very least, attempt to guide them. In the effort to shape the four possible end states, planners must identify the most effective way to affect the anticipated audience. Numerous research efforts have shown that the most effective way to influence an audience's behavior and/or belief is through affecting emotion. Subsequently, numerous studies have shown that the most effective way to affect emotion is through a well-communicated narrative or story. Every activity conducted by the Marine Corps, whether it is a declared combat operation or a routine training evolution, must be considered as "observable" in the information environment, thereby giving it an intended and unintended audience. This thesis draws heavily from literature on narratives and story architecture to provide an addendum to current Marine Corps planning procedures, ultimately leading to an enhanced planning process that effectively incorporates audience emotional considerations.				
14. SUBJECT TERMS information operations, IO, operations in the information environment, OIE, information environment operations, IE ops, narrative, audience, story, emotion, planning, influence, Marine Corps planning process, MCPP, plans, operations			15. NUMBER OF PAGES 95	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UU	

THIS PAGE INTENTIONALLY LEFT BLANK

Approved for public release. Distribution is unlimited.

**EMOTIONAL INFLUENCE CONSIDERATIONS IN MARINE
EXPEDITIONARY FORCE (MEF) OPERATIONAL PLANNING**

William C. Hughes III
Captain, United States Marine Corps
BS, United States Naval Academy, 2013

Submitted in partial fulfillment of the
requirements for the degree of

**MASTER OF SCIENCE IN INFORMATION WARFARE SYSTEMS
ENGINEERING**

from the

**NAVAL POSTGRADUATE SCHOOL
June 2021**

Approved by: Steven J. Iatrou
Advisor

Christopher Paul
Second Reader

Alex Bordetsky
Chair, Department of Information Sciences

THIS PAGE INTENTIONALLY LEFT BLANK

ABSTRACT

Every action is perceived by an audience that is subsequently influenced through the exposure to the action. This audience can be composed of declared and armed combatants, members of an extremist group, allies, or civilians. The possible end states for the influenced target audience are (a) behavior change, (b) belief change, (c) maintain current behavior, or (d) maintain current belief. It is a missed opportunity by the Marine Corps to not best posture itself to shape those outcomes, or at the very least, attempt to guide them. In the effort to shape the four possible end states, planners must identify the most effective way to affect the anticipated audience. Numerous research efforts have shown that the most effective way to influence an audience's behavior and/or belief is through affecting emotion. Subsequently, numerous studies have shown that the most effective way to affect emotion is through a well-communicated narrative or story. Every activity conducted by the Marine Corps, whether it is a declared combat operation or a routine training evolution, must be considered as "observable" in the information environment, thereby giving it an intended and unintended audience. This thesis draws heavily from literature on narratives and story architecture to provide an addendum to current Marine Corps planning procedures, ultimately leading to an enhanced planning process that effectively incorporates audience emotional considerations.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

I.	INTRODUCTION.....	1
A.	BACKGROUND: MILITARY	2
B.	BACKGROUND: THE SCIENCE BEHIND INFLUENCE	7
C.	SIGNIFICANCE.....	8
D.	RESEARCH QUESTIONS.....	9
E.	METHODOLOGY	9
F.	PREVIEW OF FINDINGS	10
II.	LITERATURE REVIEW	11
A.	JOINT DOCTRINE.....	11
1.	JP-3-0: Joint Operations	11
2.	JP 3-13: Information Operations	14
3.	JP 3-13.2: Military Information Support Operations	18
4.	JP 5-0: Joint Planning	20
5.	Joint Concept for Operating in the Information Environment (JCOIE).....	22
6.	Joint Concept for Human Aspects of Military Operations (JC-HAMO).....	23
7.	Joint Doctrine Note 1-19: Competition Continuum	25
B.	MARINE CORPS DOCTRINE.....	26
1.	Marine Corps Doctrinal Publication 1: Warfighting	26
2.	Marine Corps Warfighting Publication 5-10: Marine Corps Planning Process.....	27
3.	Marine Corps Warfighting Publication 3-32: Marine Air- Ground Task Force Information Operations.....	32
4.	Marine Corps Operating Concept for Information Operations	34
5.	Marine Air Ground Task Force Information Environment Operations Concept of Employment	36
C.	SCIENTIFIC LITERATURE.....	41
1.	Diffusion of Innovations	41
2.	Influence: The Psychology of Persuasion	42
3.	Age of Propaganda: The Everyday Use and Abuse of Persuasion.....	43

4.	Story Smart: Using the Science of Story to Persuade, Influence, Inspire, and Teach	45
5.	Story Proof: The Science Behind the Startling Power of Story	48
6.	Dr. Paul Zak’s Research Findings.....	51
III.	SEMI-STRUCTURED DISCUSSION RESEARCH.....	53
A.	SEMI-STRUCTURED DISCUSSION METHOD.....	54
B.	SEMI-STRUCTURED DISCUSSION FINDINGS	55
IV.	ANALYSIS	59
A.	PROPOSED ECPP	61
V.	CONCLUSIONS AND FUTURE RESEARCH.....	67
A.	CONCLUSIONS	67
B.	FUTURE RESEARCH.....	68
APPENDIX A. PROPOSED EMOTION-CENTRIC PLANNING PROCESS TIMELINE		71
APPENDIX B. PROPOSED EMOTION-CENTRIC PLANNING PROCESS NARRATIVE TEMPLATE.....		73
LIST OF REFERENCES		75
INITIAL DISTRIBUTION LIST		79

LIST OF FIGURES

Figure 1.	Information Environment as Part of the Operational Environment.....	3
Figure 2.	Range of Military Operations	6
Figure 3.	Application of IRCs to Achieve Influence.....	16
Figure 4.	Information Operations Cell Construct.....	17
Figure 5.	The Joint Planning Process	21
Figure 6.	Temporal Lens Model.....	24
Figure 7.	JC-HAMO Operational Framework	25
Figure 8.	Marine Corps Planning Process	28
Figure 9.	Marine Corps Planning Process - Problem Framing.....	29
Figure 10.	Marine Corps Planning Process - COA Development.....	30
Figure 11.	Marine Corps Planning Process - COA Wargaming	31
Figure 12.	ASCOPE Model.....	32
Figure 13.	MIG Command Structure	37
Figure 14.	Information Environment Operations Functions	38
Figure 15.	IE Ops Running Estimate Concept	39
Figure 16.	Six Operational Capability Areas of IO.....	40
Figure 17.	Dr. Kendall Haven’s Main Story Line Concept.....	48
Figure 18.	MCPP Phase 1 with ECPP Considerations Annotated.	62
Figure 19.	MCPP Phase 2 with ECPP Considerations Annotated.	63
Figure 20.	MCPP Phase 3 with ECPP Considerations Annotated.	64
Figure 21.	Proposed ECPP Timeline.....	65
Figure 22.	Proposed ECPP Narrative Template.....	65

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF ACRONYMS AND ABBREVIATIONS

ASCOPE	Areas and Structure, Capabilities, Organization, People, and Events
BAMCIS	Begin Planning, Arrange Reconnaissance, Make Reconnaissance, Complete the Plan, Issue the Order, Supervise
CJCS	Chairman of the Joint Chiefs of Staff
CMO	Civil-Military Affairs
CO	Cyber Operations
COC	Combat Operations Center
COCOM	Combatant Command
CPG	Commandant's Planning Guidance
DARPA	Defense Advanced Research Projects Agency
DOD	Department of Defense
ECPP	Emotion-Centric Planning Process
EW	Electronic Warfare
GCC	Geographic Combatant Commander
IE	Information Environment
IO	Information Operations
IoT	Internet of Things
IPB	Intelligence Preparation of the Battlespace
IRC	Information Related Capability
JCOIE	Joint Concept for Operating in the Information Environment
JC-HAMO	Joint Concept for Human Aspects of Military Operations
JPP	Joint Planning Process
KLE	Key Leader Engagement
MAGTF	Marine Air-Ground Task Force
MAW	Marine Air Wing
MCBUL	Marine Corps Bulletin
MCPP	Marine Corps Planning Process

MCWP	Marine Corps Warfighting Publication
MEF	Marine Expeditionary Force
MEU	Marine Expeditionary Unit
MIG	MEF Information Group
MILDEC	Military Deception
MISO	Military Information Support Operations
MLG	Marine Logistics Group
MOE	Measures of Effectiveness
MOP	Measures of Performance
MSC	Major Subordinate Command
NDS	National Defense Strategy
NSN	Neural Story Net
NSS	National Security Strategy
OE	Operating Environment
OGS	Other Government Agencies
OIE	Operations in the Information Environment
OPSEC	Operations Security
PA	Public Affairs
PSYOP	Psychological Operations
R2P2	Rapid Response Planning Process
ROMO	Range of Military Operations
STO	Special Technical Operations
TAA	Target Audience Analysis
TCP	Theater Campaign Plan
TSC	Theater Security Cooperation

ACKNOWLEDGMENTS

I would like to thank the patience and wisdom displayed by my advisors during the conduct of this report. Your mentorship was beyond value, and I am forever grateful. To my parents, thank you for the unwavering support, countless phone calls, and unconditional love throughout this process. Finally, to my wife: we have been by each other's sides throughout this whole process. You have witnessed firsthand all of the successes and struggles, and always remained nothing but the strongest and most-loving support structure I could ever ask for. Thank you, all.

THIS PAGE INTENTIONALLY LEFT BLANK

I. INTRODUCTION

Marine Corps planners are effective and efficient at planning for mission success in the physical realm; deconflicting and maximizing impacts in the Ground, Sea, and Air domains. However, a gap arises in Marine Corps planning when factoring in human audiences and the unavoidable perceptions they generate as a result of observing Marine Corps activities. Across the Range of Military Operations (ROMO), every military activity will generate impacts in the Information Environment (IE). These impacts are associated with the inherent information generated as a result of physical actions.¹ Observations of these military activities by a human audience lead to perception, emotion, belief, and ultimately behavior responses which can manifest in physical domain actions.

Emotional considerations of an audience cannot be dismissed because emotions are inherent to all humans. It is this universal commonality which the Marine Corps can capitalize on in its efforts to improve effectiveness within the IE. As explained in the academic literature review in Chapter II, human *emotional* responses have been proven to correlate to *behavior* responses.² Additionally, the concept of story architecture is an established technique utilized to gain and maintain an audience's attention through emotional engagement.³ By incorporating story architecture into their planning processes, Marine units can effectively leverage a proven emotional influence tactic to proactively plan for and guide audience observations and attempt to shape the perceptions, emotions, beliefs, and ultimately behaviors that are generated. By increasing focus of human emotional considerations early on in the Marine Corps Planning Process,

¹ Joint Chiefs of Staff, *Joint Operations*, JP 3-0. (Washington, DC: Joint Chiefs of Staff, 2018), III-22, <https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp30ch1.pdf?ver=2018-11-27-160457-910>.

² "Empathy, Neurochemistry, and the Dramatic Arc: Paul Zak at the Future of StoryTelling 2012," October 3, 2012, YouTube, video, 5:58, <https://www.youtube.com/watch?v=q1a7tiA1Qzo&t=99s>.

³ Kendall Haven, *Story Smart: Using the Science of Story to Persuade, Influence, Inspire, and Teach* (California: Libraries Unlimited, 2014), 22.

units can be afforded the opportunity to anticipate and proactively attempt to shape the observations an audience may have as a result of their military activity.

This is not a report focused on Psychological Operations (PSYOP), nor is it a study of the specific Information Related Capability (IRC) of Military Information Support Operations (MISO). Instead, this report is focused on the Marine Corps' need to better plan for and control impacts in the IE; impacts that are generated in a human's cognition as a result of their emotional responses to their observations. The solution to aid planners in better accounting for IE impacts is a simple, standardized, and methodical planning process which accounts for a basic, yet dominant human element intrinsic to all audiences: *emotion*.

A. BACKGROUND: MILITARY

Operations in the Information Environment (OIE) comprises concepts which may prove to be difficult in their application to military activities. This is due in part to the complexity of the Information Environment (see Figure 1) and the lack of tangibility associated with the human cognitive dimension and its many variables. The Information Environment is shown to span all other domains of the Operational Environment; demonstrating the need for Information, as a warfighting function, to be integrated with all other warfighting elements.

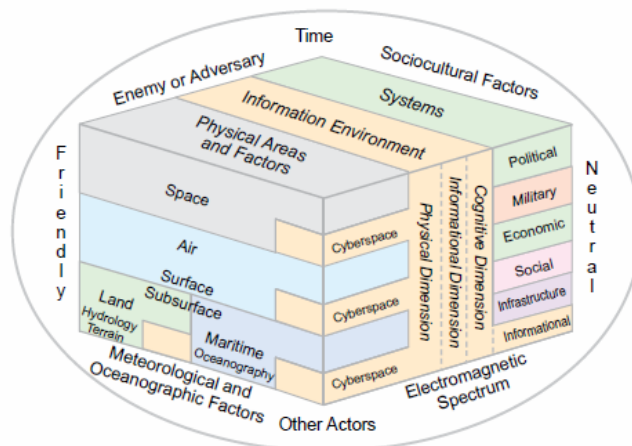


Figure 1. Information Environment as Part of the Operational Environment⁴

The intangible nature of the Information Environment requires a qualitative vice quantitative approach to its study. This thesis is structured as a top-down approach to understanding the IE; from the literature governing military thought at the national level contained in the *National Security Strategy* (NSS) to the operational level in the U.S. Marine Corps' Commandant's Planning Guidance (CPG). These documents promote a common theme: information operations and American influence must advance to better compete in the current, more sophisticated battlespace where the speed and volume of information has reached a highly complex level.

The current *National Security Strategy*, at the time of this thesis, was signed in 2017 by President Trump. The strategy specifically dictates the need for the United States to advance American influence. Within the NSS, a strategic gap is identified. The efforts of the U.S. to counter adversary information exploitation have been tepid and fragmented.⁵

⁴ Source: Joint Chiefs of Staff, *Joint Planning*, JP 5-0 (Washington, DC: Joint Chiefs of Staff, 2020), IV-8, <https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp50.pdf?ver=usfQpGSu65ateysmAng%3D%3D>.

⁵ White House, *National Security Strategy of the United States of America* (Washington, DC: White House, 2017), <https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf>.

As a result, a priority for information efforts emerged: the U.S. must craft and disseminate coherent campaigns to promote pro-American influence and combat adversary messages.⁶

Nested under the NSS is the *National Defense Strategy* (NDS). Within the brief, unclassified version of the NDS, influence is mentioned eight times. Emphasis is given to adversary nations and their current efforts to promote regional influence. In response, the NDS advocates for the sustainment of American influence across the globe; highlighting the failure to do so will incur deteriorating cohesion with U.S. allies and partners.⁷ These themes highlight U.S. adversaries and competitors are actively participating in affecting the Information Environment.

General Berger states in his 38th CPG (signed in 2019), “We must communicate with precision and consistency, based on a common focus and a unified message.”⁸ This statement resonates most-strongly with unit commanders and the Information professionals across the Marine Corps. This is accomplished through bottom-up planning where Marine Corps operations planners broaden the aperture of their planning tasks from the basic “beans, bullets, and bandages” logistics and supply requirements. Instead, planners must account for human-based factors which are not readily quantifiable. The difficulty arises when planners do not have the tools nor resident knowledge available to them to define their operation’s specific information battlefield, and more importantly, define the potential audiences within that battlefield. The proposed ECPP will provide Marine Corps planners with a logical and methodical addendum to their current planning processes, enabling them to account for emotional considerations and the cognitive element of the Information Environment. This planning tool allows for Information to be incorporated early in the planning process, synthesizing more effectively with the other warfighting functions. This will aid in mitigating a bad practice which has materialized in recent years where

⁶ White House.

⁷ Department of Defense. *Summary of the 2018 National Defense Strategy of the United States of America*. Washington, DC: Department of Defense, 2018. <https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>.

⁸ Berger, David. *38th Commandant’s Planning Guidance*. Arlington, VA: United States Marine Corps, 2019.

Information is “sprinkled in” to the planning process, vice playing a larger role in the planned activity.

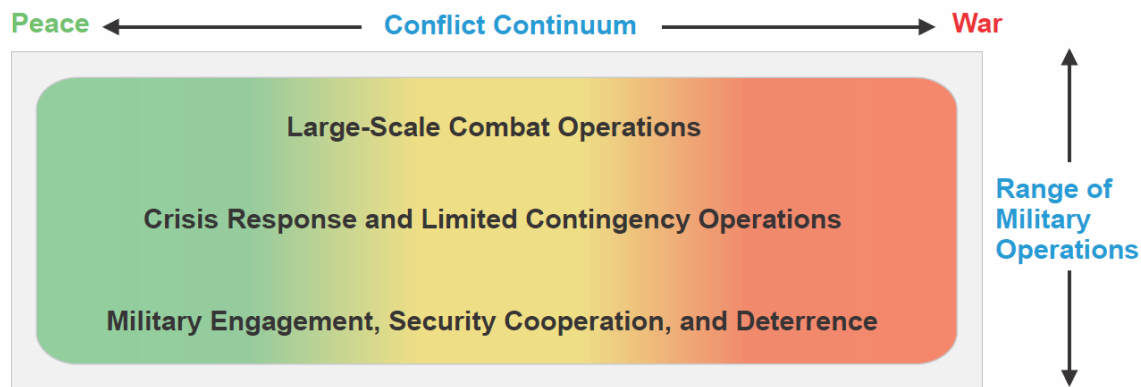
In 2019, the 37th Commandant of the Marine Corps passed into doctrine the establishment of Information as the seventh Marine Corps warfighting function.⁹ This act was predicated by the Chairman of the Joint Chiefs establishing Information as the seventh Joint function in July 2017.¹⁰ *Marine Corps Bulletin* (MCBUL) 5400 states, “The Information warfighting function helps commanders and staffs understand and leverage the pervasive nature of information, its military uses, and its application across all operational phases and the Range of Military Operations (ROMO). This function provides the Marine Corps with the ability to integrate the generation and reservation of friendly information while leveraging the inherent informational aspects of all military activities and Service level operations to achieve Marine Corps objectives.”¹¹

Within this statement resides a key component for understanding the Information Environment and its ubiquitous nature. Information is pervasive and is imbedded in every activity across the ROMO (see Figure 2). This implies all military activities conducted by the Marine Corps contain aspects which directly impact the IE. This statement serves as the crux to understanding OIE and the scope of this thesis. Every action, whether it is a routine training exercise, or declared combat operation will generate results in the IE. These results manifest in the form of perceptions, emotions, beliefs, and behaviors.

⁹ Neller, Robert. *Marine Corps Bulletin 5400*. Washington, DC. United States Marine Corps, 2019. <https://www.marines.mil/Portals/1/Publications/MCBUL%205400.pdf?ver=2019-02-06-082807-103>

¹⁰ Mattis, James. “Information as a Joint Function.” Official Memorandum. Washington, DC: Department of Defense, 2017. https://www.rmda.army.mil/records-management/docs/SECDEF-Endorsement_Information_Joint%20Function_Clean.pdf.

¹¹ Neller, *Marine Corps Bulletin 5400*.



Our national leaders can use the military instrument of national power across the conflict continuum in a wide variety of operations and activities that are commonly characterized in three groups as this figure depicts.

Figure 2. Range of Military Operations¹²

Kinetic fires produce a more-tangible cause-and-effect result in the physical domain. These effects are easier to plan. One can logically predict the result of a Marine platoon formation moving to contact with an enemy, or the result of a 60-millimeter mortar's payload landing on a target. These effects are well-known, by Marine Corps standards, and can quickly have their effects measured. Further, these effects are governed by well-understood laws of physics. The tangibility aspect of kinetic fires and physical domain effects fit into the current MCPP and its warfighting nature.

While more difficult to anticipate, effects in the cognitive dimension must also be equally planned during the MCPP. This will lead to effective perception management and a unified Marine Corps message. Additionally, organizing a narrative and planning it concurrently with the operational planning process will afford Marine Corps equities to promote a desired, and anticipated perception of its activities. Without planning for an audience's emotions, the Marine Corps has no control over the effects its audience's observations will generate.

¹² Source: Joint Chiefs of Staff, *Joint Operations*, V-4.

B. BACKGROUND: THE SCIENCE BEHIND INFLUENCE

The Information Environment is highly complex. For the scope of this report, the research is focused on the Informational and Cognitive Dimensions. Through these two dimensions, the most logical relationship occurs between military operations and emotional management considerations which facilitate perception, belief, and behavior management. Scientific studies and research have shown a direct, positive relationship between human brain activity associated with emotion, influence, and decision-making responses.¹³

Communications theory behind the diffusion of ideas and messages explains how the thoughts and perceptions of an audience travel through a population. The main elements of diffusion of innovation are, (1) the Innovation itself, (2) Communication Channels, (3) Time, and (4) the Social System.¹⁴ These four elements align well to OIE concepts. For this thesis, the Innovation will be considered to be the message intended to be broadcast as a result of the ECPP. This message is intended to emotionally resonate with an audience, thereby maintaining their attention and ultimately facilitating behavior influence. Through having the desired perception received by the audience, the Communication Channels will be associated to the identified forms of communication used to broadcast the message. Examples of communications channels are social media posts, commercials, newspaper or magazine articles, website articles, interviews, public speeches, or simple word-of-mouth conversations which all stem from the basic observation of the activity. The Time element of diffusion transfers entirely to OIE, representing the time necessary for the message to diffuse and be communicated throughout the audience. The Social System element will be the analysis of the target audience, to include cultural idiosyncrasies such as religious, economic, or political factors. Diffusion is covered more extensively in Chapter II of this report.

¹³ Jennifer Lerner, Ye Li, Piercarlo Valdesolo, and Karim Kassam, "Emotion and Decision Making," *Annual Review of Psychology* 66 (September 22, 2014): 799-823.

¹⁴ Everett Rogers, *Diffusion of Innovations*. 5th ed. (New York: Free Press, 2003).

This thesis draws heavily from literature on narratives and story architectures. Since humans have been able to converse, stories have been one of the most effective and commonly used communication methods to influence and engage others. An *effective*, well architected story is what emotionally engages the audience.¹⁵ The goal of the ECPP is to keep planners organized in factoring their military activity's effect on audience observations. Audience observations can have subsequent IE responses and open potential avenues for influence.

For the scope of this thesis, the definition used for *influence* is to change an audience's beliefs, attitudes, values, knowledge, and/or behavior.¹⁶ The science of storytelling will form the framework of the ECPP to aid planners in engaging an audience with their desired narratives in order to maintain their attention. While maintaining the audience's attention, a well-architected story will allow Marine Corps planners to effectively incorporate the required communications theory and influence techniques to affect the audience's emotion and steer the possible influence outcomes. The relationship between emotion and story architecture is explained in Chapter II.

C. SIGNIFICANCE

Every action planned within the Marine Corps is perceived by an audience who is subsequently influenced through the exposure to the action. This audience can be comprised of declared and armed combatants, members of an extremist group, allies, or civilians. The possible end-states for the influenced target audience are *changes* to their beliefs, attitudes, values, knowledge, and/or behavior.¹⁷ Conversely, should the Marine Corps planner decide, the desired end-state could also be *maintaining* an audience's current belief, attitude, value, knowledge, and/or behavior. It is a missed opportunity by the Marine Corps to not best posture itself to shape those outcomes; or at the very least, attempt to

¹⁵ Kendall Haven, *Story Smart: Using the Science of Story to Persuade, Influence, Inspire, and Teach*. (Connecticut: Libraries Unlimited, 2014), 9.

¹⁶ Haven, 9.

¹⁷ Haven, 9.

acknowledge them. Numerous research efforts have shown the most effective way to influence an audience is through affecting emotion.¹⁸ Subsequently, numerous studies have shown the most effective way to affect emotion is through a well-communicated narrative or story.¹⁹ Every activity conducted by the Marine Corps, whether it is a declared combat operation, or a routine training evolution must be considered as “observable” in the IE thereby giving it an intended and unintended audience. Story structure is the fundamental way a human’s brain receives and makes sense of information.²⁰ It is an evolutionary development over a hundred-thousand years. Fortunately, the researched and defined elements of story structure are relatively straight-forward, as depicted by Dr. Kendall Haven. This thesis will qualitatively explore literature and cases associated with the use of narratives, storytelling through human communication in order to inform Marine Corps planning of OIE; specifically in the area of effectively engaging targets through emotional appeals.

D. RESEARCH QUESTIONS

The primary research question for this thesis was, “Is the Marine Expeditionary Force (MEF) postured to appropriately manage a target audience’s emotions?” The secondary research question was, “What is the most effective way in which the MEF can manage human emotions?” Through answering these two questions, an overlap of doctrinal planning procedures and story architecture concepts was identified which provides a potential process which can be applied to existing Marine Corps planning procedures.

E. METHODOLOGY

The methodology utilized in this report is structured around three principal research areas. (1) A review of current military doctrine and publications which guide the Marine Corps operations community to plan and conduct operations across the ROMO. (2)

¹⁸ Lerner, Li, Valdesolo, and Kassam, “Emotion and Decision Making.”

¹⁹ Paul Zak. “How Stories Change the Brain.” *Greater Good Magazine*, December 17, 2013. https://greatergood.berkeley.edu/article/item/how_stories_change_brain.

²⁰ Haven, *Story Smart*, 59.

Literature review of academic publications focused on emotions-based psychology and communications theory. (3) Semi-structured discussions with Marine Corps officers from a range of military occupational specialties (MOS) focused on their MCPP and OIE planning experiences. The semi-structured discussions have an underlying theme of emotion-based planning with regards to intended and unintended audiences. In order to complete the semi-structured discussion process, analysis was conducted to identify trends in the planning experiences of the participants.

F. PREVIEW OF FINDINGS

The trend which appeared throughout the doctrine and publication review and the semi-structured discussions is that the Marine Corps does not adequately plan for emotional impacts on their audiences, thereby leading to a deficiency in shaping IE effects and causing a lack of control for Marine Corps narratives and perceptions. The literature review of military doctrine identified Information as pervasive across all aspects of military activities and something that must be accounted for in military planning. Within the academic literature, evidence supported the concept of emotions having a direct relationship to influence and decision making. Further, a strong relationship exists between story architecture and emotional influence in a target audience. Through the relationship of these findings, the author generated a planning addendum to aid USMC planning efforts in better controlling and planning for Information Environment impacts generated as a result of military activities. The end result of this thesis is a product coined the Emotion-Centric Planning Process. This process is intended to be applied at battalion-level operations to foster a new approach to OIE in Marine Corps operations planners. This new mindset will proactively guide Marines to consider emotional factors of human observers.

II. LITERATURE REVIEW

The literature review is composed of two primary categories: (1) military doctrine and (2) academic literature. Within the military doctrine category, Joint as well as Marine Corps publications are referenced. The scope of material covered with the Joint and Marine Corps publications is focused on military operations planning, influence, and Operations in the Information Environment. For the academic literature, a breadth of practices is covered. These include psychology, sociology, communications theory, and narrative/story architecture design.

Joint and Marine Corps doctrine provide the foundational understanding of OIE. Additionally, this thesis reviews and analyzes Joint and Marine Corps operational planning doctrine to best identify the current structures in place and all associated linkages where an ECPP could best be applied to ensure Information, as a warfighting function, is appropriately integrated. Within the academic literature review, a synopsis of each document is given defining that document's relevance to this thesis. Additionally, each document within the military doctrine section has a *Critical Themes* synopsis. The *Critical Themes* synopsis serves as a brief and direct explanation of the specific document's generalized themes regarding OIE, planning, and human emotional considerations. Each document is presented separately. This is done to maintain organization and simplify, for the reader, the conveyance of the critical themes extracted from each document. The OIE community is continuing to generate, update, and solidify new doctrine. Because of this, some of the terminology used here may have become outdated since the publication of each document. For continuity purposes, the discussion of each reviewed document will utilize the terminology which was current at the time of that document's publication.

A. JOINT DOCTRINE

1. JP-3-0: Joint Operations

JP 3-0 serves as the framework for joint operations and defines strategic-level warfighting concepts. Subsequently, all services within the Department of Defense nest

their operational planning doctrine under JP 3-0. Within JP 3-0, the seven joint warfighting functions are defined, to include the newest function: Information.

JP 3-0 defines an important concept for the OIE community. The term *relevant actor* is defined as, “The human and automated systems whose behavior the JFC wants to affect.”²¹ For the scope of this thesis, the focus is on the human component of the relevant actors definition, more specifically, the emotional factor.

Perhaps one of the most profound and relevant statements within JP 3-0 is, “All military activities produce information.”²² This concept is closely aligned to perception management and the concept of an audience always being present to observe and subsequently generate a perception, emotion, belief, or behavior response. However, while this statement is present in JP 3-0, there remains a disconnect between this doctrinal intent and what is actively conducted in the joint force on a daily basis. The Marine Corps has yet to fully grasp this statement and maintains a focus on traditional planning factors such as the “beans, bullets, and bandages,” requirements. The lack of OIE considerations from the onset of the planning process is the initiation of the gap this thesis looks to address.

JP 3-0 further defines a major function of Information to be, “Leverage Information to Affect Behavior.”²³ Under this function are three responsibilities. (1) Influence Relevant Actors, (2) Inform Domestic, International, and Internal Audiences, and (3) Attack and Exploit Information, Information Networks, and Systems.²⁴ Responsibilities (1) and (2) share a common goal which is to steer perceptions in such a way as to garner positive favor from the relevant actors. Additionally, responsibility (1) states the joint force considers, regardless of mission, the impacts their operations will have regarding influence end states.²⁵ Adherence to this concept during military planning will aid in achieving the

²¹ Joint Chiefs of Staff, *Joint Operations*, III-18,

²² Joint Chiefs of Staff, III-17.

²³ Joint Chiefs of Staff, III-19.

²⁴ Joint Chiefs of Staff, III-19.

²⁵ Joint Chiefs of Staff, III-19.

Commandant's intent of fully integrating Information amongst the other warfighting functions.

Defined in JP 3-0 are 11 capabilities which the joint force can utilize to leverage Information. Within the Marine Corps, these 11 capabilities are known as Information Related Capabilities (IRCs). The 11 capabilities are (1) Key Leader Engagements (KLE), (2) Public Affairs (PA), (3) Civil-Military Operations (CMO), (4) Military Deception (MILDEC), (5) Military Information Support Operations (MISO), (6) Operations Security (OPSEC), (7) Electronic Warfare (EW), (8) Combat Camera, (9) Space Operations, (10) Special Technical Operations (STO), and (11) Cyber Operations (CO).²⁶

It is important to note all 11 of these capabilities have their own doctrine and lines of authorities and permissions. All operations are to be planned in such a way as to benefit from the inherent informational aspects generated as a result of physical power so as to influence the TA.²⁷ As explained in Chapter III's research findings, this is where the current gap arises within Marine Corps operations planning and control over Information Environment impacts. Starting from the highest echelon of military planning guidance, there is a disconnect with the actual application of Information, as a warfighting function, to operations planning. The 11 capabilities are treated as separate operations while the inherent informational aspects of operations are neglected. In order to achieve successful OIE effects, planners must understand IRCs serve specific missions which require employment on a situationally-dependent basis while the inherent aspects of Information are present for every military activity.

Within the overall Operating Environment (OE), applying Information, as a tool, to influence relevant actors' perceptions and attitudes is an effective way to generate targeted behaviors from the relevant actor.²⁸ What JP 3-0 does not do is describe or educate the reader on how to apply the IRCs to generate targeted behavior. In order to learn the

²⁶ Joint Chiefs of Staff, III-22 through III-26.

²⁷ Joint Chiefs of Staff, III-22.

²⁸ Joint Chiefs of Staff.

application of the IRCs, Marine Corps planners must resort to additional doctrine and leverage specially trained personnel.

Critical Themes of JP 3-0: The concept of informational aspects resulting from physical power contains a key OIE concept. All activities will have an audience and therefore generate Information considerations. The audiences observing the activities may not be a specific Target Audience, nonetheless observations of military activities across the ROMO will be inevitable. This predicated the research of this thesis, providing CJCS-level acknowledgement and prioritization of Informational aspects to military planning and operations. The ever-present nature of Information is understood by the highest echelons of military command. This generates a need to consider every military activity as a potential OIE projectile, especially with the guidance in JP 3-0 to apply Information to influence relevant actor perceptions and attitudes. In a basic summation of this concept: if military activities generate information, and information is leveraged to influence relevant actors; then military activities influence relevant actors.

2. JP 3-13: Information Operations

As of 2021, JP 3-13 provides the most detail and explanation for Information Operations within the DOD. Although four years older than JP 3-0 and overdue for an update, this document includes similar information such as the definitions of the Information Related Capabilities (IRC). This document is heavy in legal considerations and authorities that govern the use of IRCs and further explains the relationship between DOD Directive 3600.01, *Information Operations* and CJCS Instruction 3210.01, *Joint Information Operations Policy*. For the scope of this thesis, governing legal authorities will not be covered in-depth, however JP 3-13 remains a mandatory read for OIE professionals due to the legal consideration information.

This document provides sound predication for the importance of Information and its increasingly dominant role in a world characterized by rapid emergence of technology. Included as an instrument of national power, Information is considered alongside diplomatic, military, and economic influence to provide international response tools for the

U.S. government.²⁹ The global communications infrastructure has become increasingly interconnected as a result of higher data rates and the pervasive nature of the Internet of Things (IoT). In order to make sense of the massive and nebulous construct like the IoT and ever-present nature of Information, JP 3-13 expounds on the three dimensions of the Information Environment to give a tangible understanding to the topic. The three dimensions (see Figure 3) are the Cognitive, Informational, and Physical.³⁰ The Physical Dimension is comprised, but not limited to, the networks, platforms, facilities, humans and leadership, and equipment necessary to facilitate information and data transfers.³¹ The JP 3-13 definition of the Information Dimension bears striking similarities to the Physical Dimension. While the Informational Dimension is comprised of physical infrastructure such as the servers where data and information is stored, or the means in which information is collected, disseminated, and processed; this dimension is more focused on the information itself, and not the physical infrastructure.³² Additionally, the Informational Dimension can best be understood as a logical connection between the Physical Dimension and the Cognitive Dimension. The Cognitive Dimension represents the mind and “brain power” of the target audience.³³ This dimension is where this thesis is focused. Within the Cognitive Dimension, influence variables reside to best apply influence techniques and specific IRCs.

²⁹ Joint Chiefs of Staff, *Information Operations*, JP 3-13. (Washington, DC: Joint Chiefs of Staff, 2014), I-1, https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3_13.pdf.

³⁰ Joint Chiefs of Staff, X.

³¹ Joint Chiefs of Staff, I-2.

³² Joint Chiefs of Staff, I-3.

³³ Joint Chiefs of Staff, I-3.

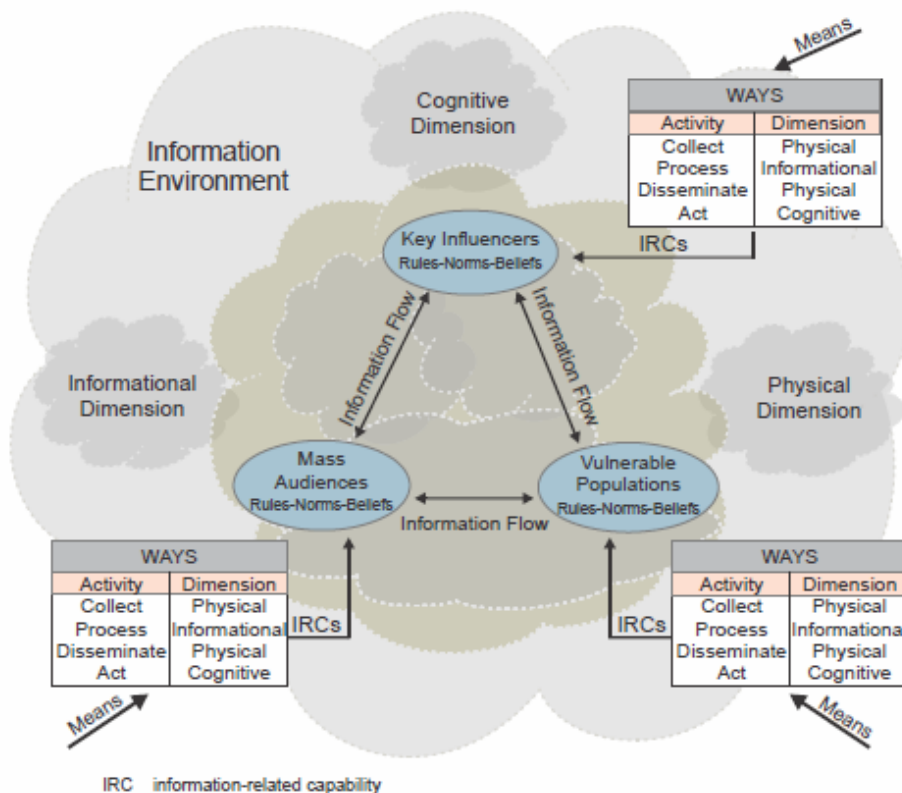


Figure 3. Application of IRCs to Achieve Influence³⁴

JP 3-13 illuminates the complexity within which operations in the IE are planned and executed. The generalized theme proposed with JP 3-13 regarding IO planning is to bring together every persona and billet with a vested interest into a planning group or cell. While the defined IO Cell in JP 3-13 is derived from a Joint-level command, the essence of the structure and its roles is appropriate for a MEF-level staff. The IO Cell (see Figure 4) depicts a 23-billet team which not only coordinates and deconflicts unit-internal capabilities, but external and U.S. Government efforts as well.³⁵ This holistic approach to

³⁴ Source: Joint Chiefs of Staff, I-7.

³⁵ Joint Chiefs of Staff, II-6.

IO planning adequately factors all pertinent billets and capabilities. However, this structure is not perfectly suitable for all echelons of Marine Corps operations and planning.

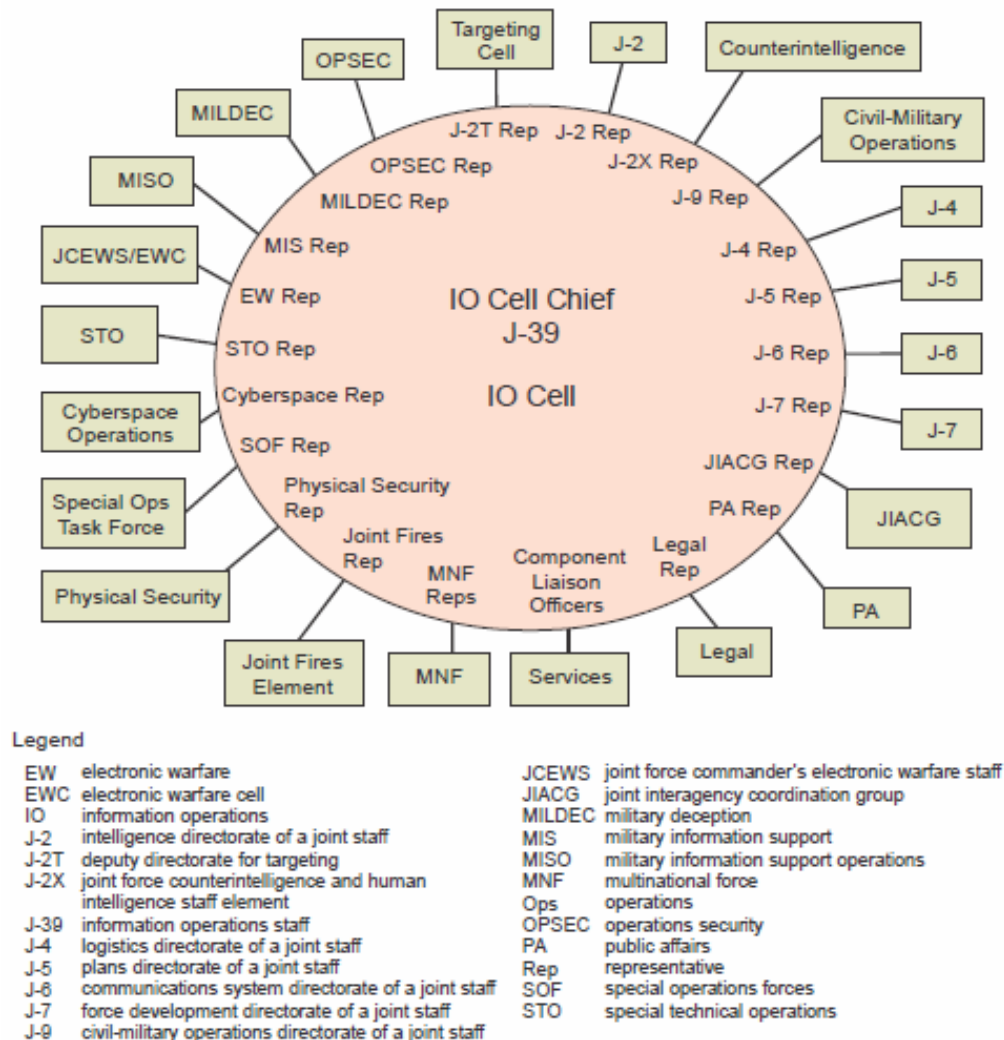


Figure 4. Information Operations Cell Construct³⁶

Critical Themes of JP 3-13: Below the MEF-level, manning and personnel restraints limit a unit's ability to fully field an IO Cell. A MEF command or a deployed

³⁶ Source: Joint Chiefs of Staff, II-6.

Marine Expeditionary Unit (MEU) has the ability to man an IO Cell which aids in ensuring IRCs are applied correctly and Information Environment considerations are factored into operational planning. However, battalion-level commands across the Marine Corps are not adequately structured to maintain a standing IO Cell, nor field one on a case-by-case basis. This poses a risk to a large percentage of USMC training and operations occurring at the battalion and below levels. Audience observations are not exclusive to deployed or combat operations. Any echelon of command within the Marine Corps has the chance to have their military activities observed, thus leading to a vulnerability of uncontrolled perceptions promulgating through a human population. The current MEF Information Group (MIG) structure is an adequate MEF-level effort to produce a command which provides the same organizational benefits as a standing IO Cell.

3. JP 3-13.2: Military Information Support Operations

JP 3-13.2 is the first piece of doctrine which delves deep into the process which is used to influence a target audience. Broken down into seven phases, MISO is intended to develop, deliver, and coordinate influence messages to a target audience.³⁷ The seven phases presented in JP 3-13.2, in chronological order are,

1. Phase I: Planning
2. Phase II: Target Audience Analysis
3. Phase III: Series Development
4. Phase IV: Product Development and Design
5. Phase V: Approval
6. Phase VI: Production, Distribution, and Dissemination
7. Phase VII: Assessment³⁸

During Phase I, MISO planners must not only account for their MISO program's support to the GCC, but to external entities as well. This can include embassy leadership and other government agencies (OGAs) to ensure a holistic Theater Campaign Plan (TCP) is promoted. The resounding theme for Phase I is similar to all *planning* phases across the

³⁷ Joint Chiefs of Staff, *Military Information Support Operations*, JP 3-13.2. (Washington, DC: Joint Chiefs of Staff, 2014), V-1, https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3_13.pdf.

³⁸ Joint Chiefs of Staff, V.

DOD. This theme is to always ensure the operation is deconflicted with adjacent units and nested under the intent of the commander.

Target Audience Analysis (TAA) is an intelligence-heavy phase. While the MIG command did not exist during the initial publication year of JP 3-13, the MIG construct fortunately facilitates the Target Audience Analysis phase well. Each MEF has a MIG command; adjacent to the Division, Marine Logistics Group (MLG), and Marine Air Wing (MAW). The MIG is one of four Major Subordinate Commands (MSCs) of the MEF. Two units subordinate to the MIG are critical to OIE and TAA: the Intelligence Battalion and the Radio Battalion. Both battalions contain intelligence collection and analytic capabilities which, in theory, will provide the technology, competency, and man-hours to conduct TAA on behalf of MEF influence operations.

Phases III and IV are where the MISO process begins to formulate the potential COAs for the influence operation. During these phases, media venues, message suitability, message duration, and resources allocation are planned. After selecting the plausible COAs for the message, MISO planners then begin the fifth phase, Approval. Standard command hierarchy practices apply to Phase V in the same manner as any typical military organization.

Phases VI and VII denote the Production, Distribution, and Dissemination; and Assessment phases, respectively.³⁹ A major consideration with the Assessment phase is the understanding of Measures of Effectiveness (MOE) and Measures of Performance (MOP) with regards to identifying the success of the MISO message. Evaluating success of a message meant to generate effects in a human's mind is a difficult task. JP 3-13.2 provides the following as potential venues to utilize in assessing MOEs and MOPs: intelligence products, public opinion data, focus groups, open-source data, and key leader engagements.⁴⁰

³⁹ Joint Chiefs of Staff, V-7.

⁴⁰ Joint Chiefs of Staff, V-7.

Critical Themes of JP 3-13.2: This publication spends ample time covering the importance of intelligence support and other capability enablers necessary to create, disseminate, and evaluate an effective influence message. TA development and analysis is a scalable concept. Understanding the factors comprising the cognitive dimension of the target is a concept which transcends from the higher Joint level of operations down to a smaller USMC-specific scale. The standardized, seven-phase MISO process provides a logical and well-organized structure with which to build a very specific influence message. The MISO process is not the only activity the Marine Corps can leverage to influence a target audience. As covered in JP 3-0, military activities across the ROMO generate Information which is needed to influence TAs. By applying this concept to the MEFs, the available opportunities to influence TAs becomes abundant. Individual operations sections within subordinate MEF units can effectively plan for IE impacts of their activities and leverage the proposed ECPP to best factor human emotional considerations. The MIG command will then be afforded the means to increase the MEF's Information Environment presence by maintaining cognizance and deconflicting the ECPP narratives which become standardized planning considerations within those smaller subordinate units.

4. JP 5-0: Joint Planning

“Rapid advancements in cyberspace and information capabilities such as artificial intelligence, digital editing, and Internet applications enable rapid sharing of information and narratives, from areas of conflict to national leaders and the global public.”⁴¹ JP 5-0 covers two primary levels of planning: (1) the strategic level which directly aligns its responsibilities to the orders and intents of the Secretary of Defense and the President, and (2) the operational level where the strategic-level intents are translated into actionable military activities to ensure national interests in the specified COCOM.⁴² The stated importance of information capabilities is understood and factored at both levels of Joint

⁴¹ Joint Chiefs of Staff. *Joint Planning*, JP 5-0. (Washington, DC: Joint Chiefs of Staff, 2020), I-1, <https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp50.pdf?ver=usfQpGSu65ateysmAng%3D%3D>.

⁴² Joint Chiefs of Staff.

Planning. This is observed during the Commander's Communication Synchronization process in which the Combatant Commanders ensure they deconflict and partner their efforts with the rest of the U.S. government, specifically the Department of State. During this process, all the major OIE themes are addressed to include synchronizing narratives, themes, messages, images, operations, and actions.⁴³

One of the most critical products resulting from JP 5-0 is the seven-step Joint Planning Process (see Figure 5). The Joint Planning Process (JPP) is not binding, but rather provides a logical problem-solving process which is applicable to all levels of military planning. When in a crisis, or severely restrained timeline, the JPP can be modified to meet the time constraints and limitations. This is a similar construct to the Marine Corps Planning Process being scaled to meet condensed timelines through the use of the Rapid Response Planning Process (R2P2).

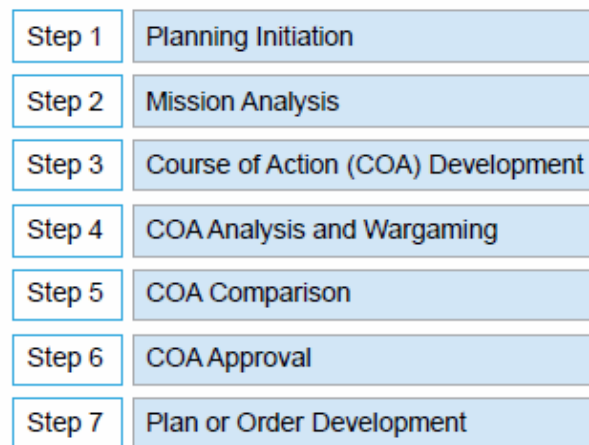


Figure 5. The Joint Planning Process⁴⁴

⁴³ Joint Chiefs of Staff, II-10.

⁴⁴ Source: Joint Chiefs of Staff, III-11.

Critical Themes of JP 5-0: In efforts to fulfill the objectives of the two defined levels of planning, USMC equities can be deployed in support of operations within the COCOMs. Within JP 5-0, it is explicitly stated communication synchronizations considerations should be integrated in all joint military planning across the ROMO.⁴⁵ At the joint level, this concept is feasible to achieve by forming IO Cells that can be fully manned and maintain liaison with other government agencies. Maintaining an IO Cell for a Marine Corps MEF would be most appropriate within the MIG command. Information Environment considerations which are factored during Joint Commander's Communication Synchronizations are still applicable at lower-level operations, such as those planned and executed within the MEFs.

5. Joint Concept for Operating in the Information Environment (JCOIE)

Perhaps the most critically important document to the DOD's OIE effort, the JCOIE blends military practice with philosophical principles surrounding the Information Environment. Stated in the JCOIE, "Every Joint Force action, written or spoken word, and displayed or relayed image has informational aspects that communicate a message or intent."⁴⁶ The JCOIE takes a holistic approach to not only defining the ever-present element of Information, but expounds on the implications of information power generated as a result of military activities.

In an effort to further define the Information Environment, three new aspects are discussed which are common amongst both the Information Environment as well as the Operational Environment. The new aspects are, (1) Informational Aspects, (2) Physical Aspects, and (3) Human Aspects.⁴⁷ In contrast to the original Information Environment model which is comprised of the Physical, Informational, and Cognitive dimensions; the

⁴⁵ Joint Chiefs of Staff, II-10.

⁴⁶ Joint Chiefs of Staff, *Joint Concept for Operating in the Information Environment (JCOIE)*. (Washington, DC: Joint Chiefs of Staff, 2018), 14, https://www.jcs.mil/Portals/36/Documents/Doctrine/concepts/joint_concepts_jcoie.pdf.

⁴⁷ Joint Chiefs of Staff, 3.

three new aspects are intended to have an analytical focus on the ways in which Informational, Physical, and Human considerations are interconnected.⁴⁸ While each dimension within the IE is a fundamental component, the doctrinal explanations lack detail to their interconnectedness. The JCOIE addresses this issue through the three aspects which provide for a more usable construct which allows for a more fruitful TAA process to exist.

Critical Themes of JCOIE: Imperative to the framework of this thesis, the JCOIE acknowledges and further validates the importance of informational aspects which are inherent in all military activities. All military activities will have observers. These observers will sense and analyze the informational aspects which leads to the observer assigning meaning to the military activity.⁴⁹ A critical component to military planning is centered around the final meaning the observers assign to the activity. Influencing or guiding the potential meaning must be an included planning factor during the planning process; from the strategic Joint level to the battalion level within the Marine Corps. The Human Aspect is highly complex with a seemingly countless number of variables. In an effort to connect the end state of assigned meaning with TA observations, JCOIE utilizes the worldview concept. Worldview is defined in the JCOIE as, “A mental model of reality - a framework of ideas and attitudes.”⁵⁰ Included in the JCOIE are four main cultural factors which form a person’s worldview: beliefs, values, narratives, and behaviors.⁵¹

6. Joint Concept for Human Aspects of Military Operations (JC-HAMO)

The JC-HAMO provides valuable knowledge on the elements which shape human behavior. Similar to the JCOIE concept of worldview, the JC-HAMO utilizes the concept

⁴⁸ Joint Chiefs of Staff, 4-5.

⁴⁹ Joint Chiefs of Staff, 14.

⁵⁰ Joint Chiefs of Staff, 15.

⁵¹ Joint Chiefs of Staff, 15.

of *temporal lens* (see Figure 6). The five defined elements of the temporal lens model are physical, social, psychological, informational, and cultural.⁵²

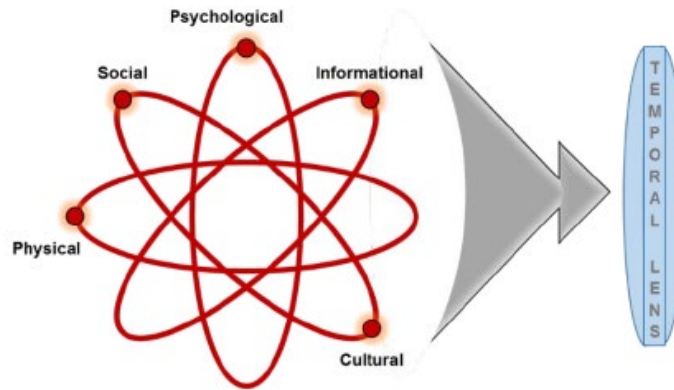


Figure 6. Temporal Lens Model⁵³

Each element in the temporal lens model serves a niche category of factors which ultimately define how a relevant actor or TA perceives their surroundings. The physical, social, informational, and cultural are all elements which denote external influences on the relevant actor. The psychological element is most appropriate for the scope of this thesis. Comprising this element are the life experiences, emotions, and mental health of a relevant actor.⁵⁴ These factors aggregate to influence a relevant actor's decision-making process.

Critical Themes of JC-HAMO: The application of human aspects to military operations is well-captured in the JC-HAMO. Utilizing four key idea imperatives - identify, evaluate, anticipate, and influence; the JC-HAMO Operational Framework (see Figure 7) provides an organized process to affect relevant actors and TAs.⁵⁵ Themes within the JC-

⁵² Joint Chiefs of Staff, Joint Concept for Human Aspects of Military Operations (JC-HAMO). (Washington, DC: Joint Chiefs of Staff, 2016), <https://nsiteam.com/social/wp-content/uploads/2017/01/20161019-Joint-Concept-for-Human-Aspects-of-Military-Operations-Signed-by-VCJCS.pdf>.

⁵³ Source: Joint Chiefs of Staff, 6.

⁵⁴ Joint Chiefs of Staff, 7.

⁵⁵ Joint Chiefs of Staff, 13.

HAMO Operational Framework are easily translated to USMC planning procedures. The framework is intelligence-heavy, bearing similar themes to TAA. What the JC-HAMO Operational Framework adds to DOD planning is a model which more effectively considers cognitive dimension variables.

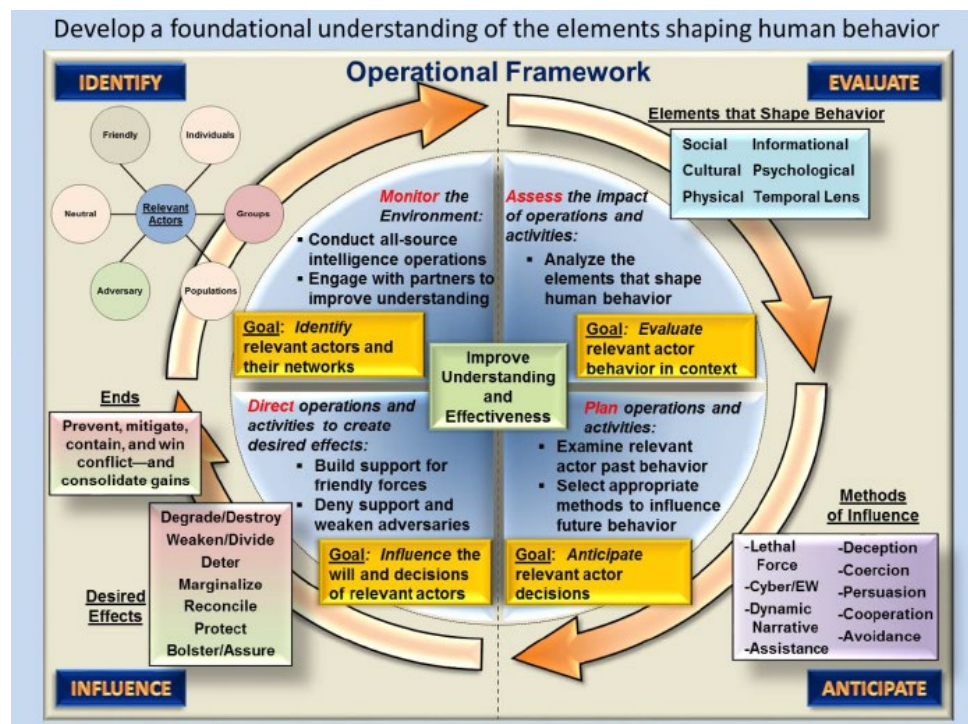


Figure 7. JC-HAMO Operational Framework⁵⁶

7. Joint Doctrine Note 1-19: Competition Continuum

Joint Doctrine Note 1-19 begins by acknowledging *Competition* is not a binary concept where the U.S. is either at peace, or at war. Instead, *Competition* is a sliding scale which transcends across three distinct statuses of relationships. These three relationships

⁵⁶ Source: Joint Chiefs of Staff, 14.

are (1) cooperation, (2) competition below armed conflict, and (3) armed conflict; and can be concurrently occurring between the U.S. and a given actor.⁵⁷

Throughout the three relationships in the continuum, *Information* is most-heavily considered during competition below armed conflict. Specifically, this phase calls for joint force actions in the Information Environment to counter and undermine the adversary's narratives.⁵⁸ During this relationship in the continuum, it is imperative to utilize information capabilities to influence relevant actor behavior without crossing the threshold of armed conflict and inciting adversary response which would advance to kinetic hostilities.

Critical Themes of Joint Doctrine Note 1-19: In the current global power arena, competition below armed conflict is common. The four elements of grand strategy - diplomacy, military, information, and economic are at constant play; being leveraged by the U.S. government daily. Influencing relevant actors or TAs through IRCs can aid the U.S. in shaping opinions and controlling narratives within the COCOMs. Additionally, USMC activities are dynamically employed across the ROMO. Effectively applying the information power generated from all of its activities down to the lowest echelons of command will forward the Marine Corps' relevance in the Information Environment.

B. MARINE CORPS DOCTRINE

1. Marine Corps Doctrinal Publication 1: Warfighting

Marine Corps Doctrinal Publication 1 (MCDP-1) is the bedrock document for the Marine Corps' philosophy on warfare. Within MCDP-1 are four chapters, each dedicated to strategic-level concepts of warfighting. Throughout MCDP-1 is a recurring theme of the human factor and its unique variables which contribute to the complexity of warfare.

⁵⁷ Joint Chiefs of Staff, *Competition Continuum*, Joint Doctrine Note 1-19. (Washington, DC: Joint Chiefs of Staff, 2019), 2, https://www.jcs.mil/Portals/36/Documents/Doctrine/jdn_jg/jdn1_19.pdf.

⁵⁸ Joint Chiefs of Staff, 8.

Critical Themes of MCDP-1: MCDP-1 defines war as, “A clash between opposing human wills.”⁵⁹ This grand concept implies there is ever-present uncertainty associated with the human variable. Critical to this thesis, MCDP-1 acknowledges how war will be shaped by the emotions of its human participants and further states the absence of human factor considerations in warfighting doctrine will render that doctrine inherently flawed.⁶⁰ Serving as one of the most prominent USMC publications, these concepts are echoed and implied throughout subordinate doctrine.

2. Marine Corps Warfighting Publication 5-10: Marine Corps Planning Process

Marine Corps Warfighting Publication (MCWP) 5-10 serves as the foundation to Marine Corps planning. The BAMCIS model of planning is sufficient for small-unit leadership within the Marine Corps while the MCPP is utilized to best foster joint planning efforts on behalf of the Marine Corps.⁶¹ For the scope of this thesis, understanding BAMCIS is related to small-unit leadership is sufficient. The squad, platoon, and potentially the company echelons of command would reference this model for tactical-level planning. With regards to OIE and emotional influence considerations, the MCPP and its association at the battalion-level and higher is appropriate.

The MCPP is comprised of six critical stages (see Figure 8). OIE has a role within each of the six steps. However, a lack of planning with regards to influence, relevant actors, and TA perceptions is characteristic within all of the six steps. The first glimpse of human considerations is shown within the Intelligence Preparation of the Battlespace (IPB) process. While including human and Information Environment considerations within the MCPP is a positive, the planner is only accountable for these considerations as a result of a byproduct of the S-2 (Intelligence) shop. The S-2 provides categorical information

⁵⁹ Department of the Navy, *Warfighting*, MCDP-1. (Washington, DC: Headquarters United States Marine Corps, 1997), 13.

⁶⁰ Department of the Navy, 14.

⁶¹ Department of the Navy, *Marine Corps Planning Process*, MCWP 5-10. (Washington, DC: Headquarters United States Marine Corps, 2016).

regarding the human landscape of the battlespace, which will serve an additional OIE purpose of defining the relevant actors and target audience, but within the MCPP, this does nothing to plan OIE support and it does nothing to involve planners with the consideration of the inherent information aspects of their military activities. Operational planning factors for the physical domain are only present at this point in the planning process.

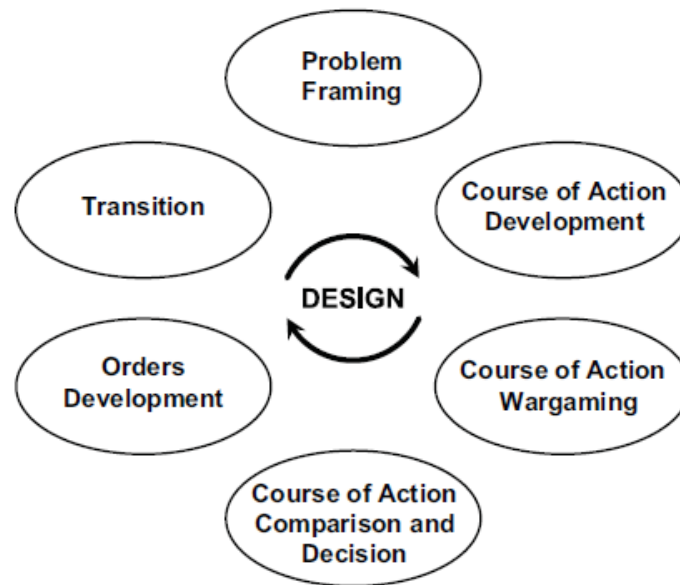


Figure 8. Marine Corps Planning Process⁶²

Critical Themes of MCWP 5-10: Figures 9-11 are visual representations of the first three phases of the MCPP. Each step within the MCPP depicts the inputs needed for the specific step, the actions conducted within that step, and the final products delivered for completion of the step. It is important to note relevant actor and TA considerations are not explicitly recognized during the six steps of the MCPP. The IPB focuses more on Information Environment considerations which are referenced during planning, however the scope of these considerations are only data points to improve planning, not Information

⁶² Source: Department of the Navy, 1.

Environment considerations focused on the inherent information impacts resulting from the MCPP-planned event itself.

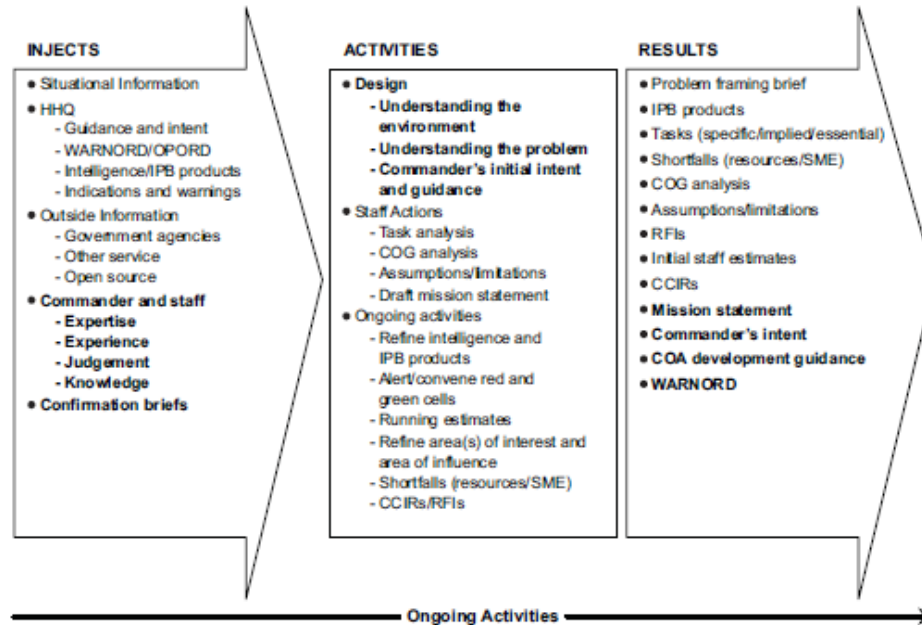


Figure 9. Marine Corps Planning Process - Problem Framing⁶³

⁶³ Source: Department of the Navy, D-1.

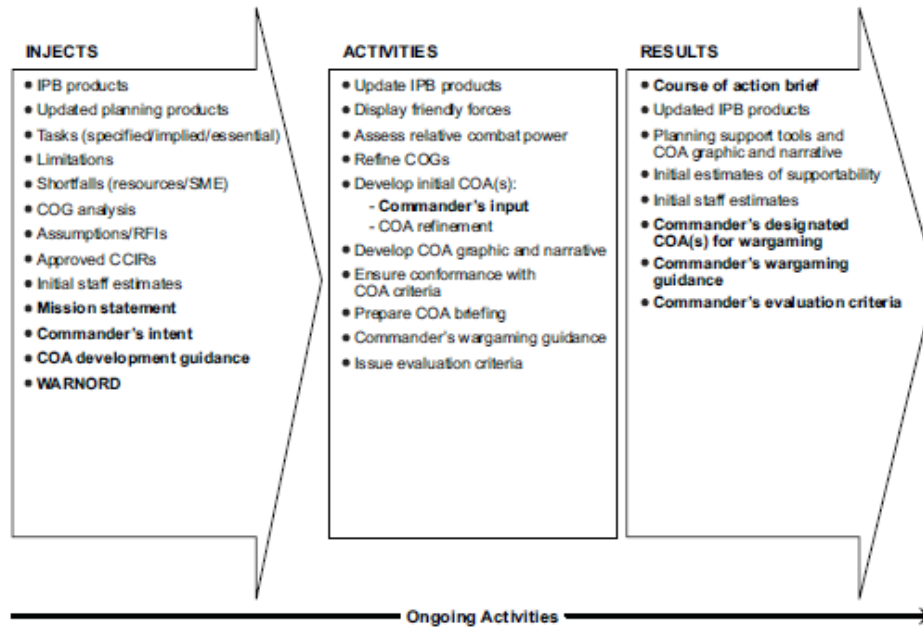


Figure 10. Marine Corps Planning Process - COA Development⁶⁴

⁶⁴ Source: Department of the Navy, D-2.

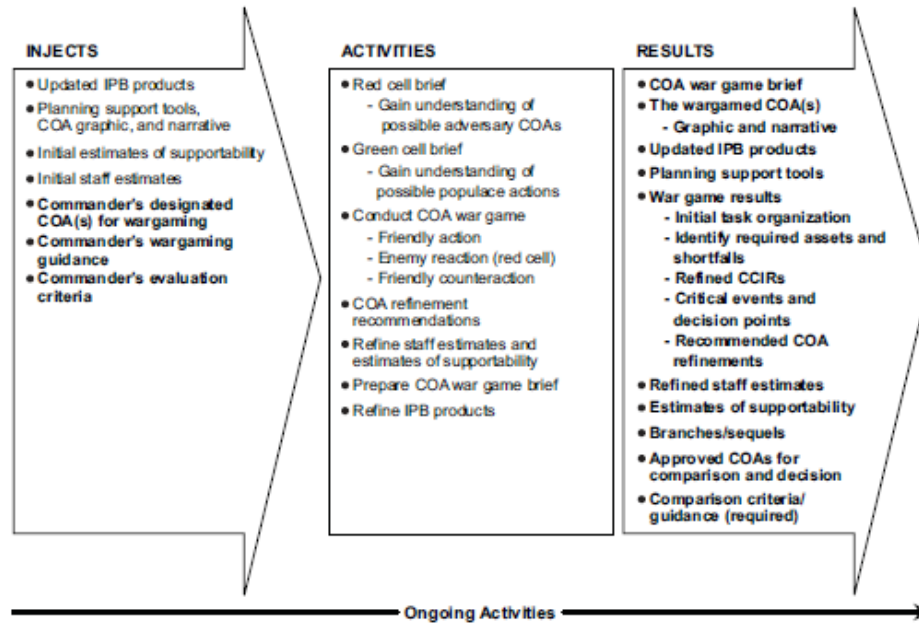


Figure 11. Marine Corps Planning Process - COA Wargaming⁶⁵

Another critical OIE process within the MCPP is the Areas and Structure, Capabilities, Organization, People, and Events (ASCOPE) model (see Figure 12). This model is utilized within the IPB process to provide a holistic understanding of the civil terrain the Marines will be operating within. This model not only provides planning details for the physical domain such as critical infrastructure, but it also accounts for planning variables pertinent to IE considerations.

⁶⁵ Source: Department of the Navy, D-3.

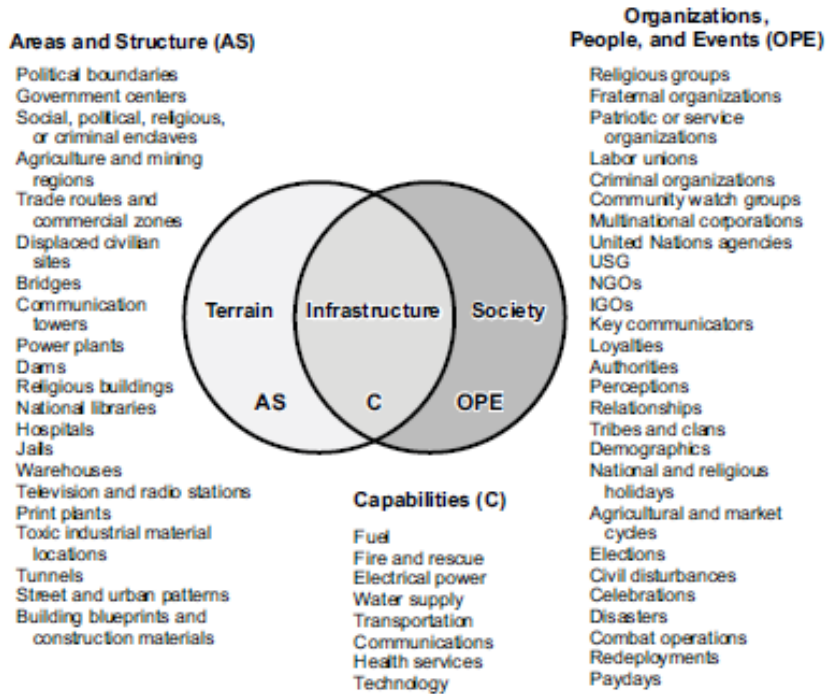


Figure 12. ASCOPE Model⁶⁶

3. Marine Corps Warfighting Publication 3-32: Marine Air-Ground Task Force Information Operations

MCWP 3-32 serves as a link between the Marine Air-Ground Task Force (MAGTF) structure and the way in which Information, as a warfighting function, is theoretically integrated. This publication is heavily focused on explaining the integration of 13 IRCs. The 13 presented IRCs are generally present in most publications involving Information and OIE. They are Military Deception, Electronic Warfare, Operations Security, Military Information Support Operations, Cyberspace Operations, Physical Attack, Information Assurance, Physical Security, Counterintelligence, Public Affairs, Civil-Military Operations, Combat Camera, and Defense Support to Public Diplomacy.⁶⁷

⁶⁶ Source: Department of the Navy, E-12.

⁶⁷ Department of the Navy, *Marine Air-Ground Task Force Information Operations*, MCWP 3-32. (Washington, DC: Headquarters United States Marine Corps, 2018).

Of note, MCWP 3-32 marries the concept of OIE planning to the existing structure of the MCPP. Within the planning process for OIE support, the Future Operations (FOps) section of a command staff plays a critical role. Annotated in MCWP 3-32, the MAGTF IO officer within the FOps section is tasked with ensuring the following:

- Integrating and coordinating IO efforts.
- Responding directly to the commander via the G-3/S-3 for MAGTF information operations.
- Ensuring that the IO cell is incorporated into and provides input to the operational planning team (OPT) during planning to ensure coordinated operations.
- Preparing the IO appendix to the operation order (OPORD).
- Directing personnel within the MAGTF IO cell as well as augmentees from external agencies who are assigned to the IO cell.
- Ensuring that all information operations are coordinated within the MAGTF staff, higher headquarters, and external agencies.
- Coordinating and collaborating with the intelligence staff section (G-2/S-2).⁶⁸

With a staff officer dedicated to these functions, OIE is afforded a centralized touchpoint during the planning process to ensure different planning equities deconflict and coordinate operational efforts. In theory, this concept works well; especially when a single unit is organically manned with such positions as Public Affairs Officers, Electronic Warfare Officers, or Civil Affairs officers. In reality, battalion-sized units and below in the Marine Corps generally are not fielded with these niche staff officer billets. Instead, higher headquarters or the MIG would provide this support.

Critical Themes of MCWP 3-32: During the Problem Framing planning phase, the IO concept of support is introduced. The IO concept of support serves two critical purposes. First, it forces the IO Officer in the FOps section to ensure the IO support is nested within the commander's guidance. Second, the concept of support begins the process of identifying organic OIE capabilities and resources, as well as OIE deficiencies and what will need to be externally sourced.⁶⁹ As the MCPP progresses, so does the IO concept of

⁶⁸ Department of the Navy, 2-1 through 2-2.

⁶⁹ Department of the Navy, 2-4.

support. MCWP 3-32 states when the operations planners develop multiple COAs, the MAGTF IO officer must develop IO concepts of support for each COA; answering the following requirements:

- What IO tasks will be accomplished?
- Who will execute the IO tasks (IO assets capabilities)?
- When will IO tasks be executed?
- Where will the IO task occur?
- Why is each IO task required (intended effect)?
- How will the MAGTF employ IRCs and other organic capabilities to accomplish the tasks?
- How is the IO concept nested with the higher headquarters' IO plan and scheme of maneuver?⁷⁰

With these requirements, OIE planning defines tangible benchmarks with which progress can be made in developing sufficient COAs. Essentially the “Five-Ws” of information, the IO concept of support aids planners to generate tangible OIE responses to the operational COAs planned by the rest of the staff sections. Critical to this thesis is the relationship the IO concept of support has with the operational COAs. This concept transcends all levels of command and is scalable to meet any commander’s operational intent. Whether a basic COA is generated to conduct a company-level training exercise, or an operation during armed conflict; the IO concept of support guides the OIE planning officer and OIE-related equities in clearly defining the appropriate scope and support needed to be integrated within the defined operation.

4. Marine Corps Operating Concept for Information Operations

Dated February 2013, the *Marine Corps Operating Concept for Information Operations* is slightly outdated. In comparison to MCWP 3-32: MAGTF IO, this document has differences in doctrinal definitions, but the variations in concept are minor enough to still convey similar OIE roles and responsibilities. This document contains and underlying theme which aligns OIE to combat operations and conflict actions. This is shown through

⁷⁰ Department of the Navy, 2-7.

the direct relationship describing IO as a natural extension and evolution of the combined arms and maneuverist mindsets.⁷¹

Given the unique way in which *Information* can be incorporated as a warfighting function, multiple philosophies have formed throughout the DOD and USMC. One of these philosophies is centered on treating OIE as a form of non-kinetic fires. This causes juxtaposition to arise when relating an OIE activity to an act such as artillery fires, a traditional form of kinetic fires. Within this comparison, the *Marine Corps Operating Concept for Information Operations* identifies four unique traits of information in its application:

- Information must compete for the attention of the intended target while fires have no such requirement.
- Although the target of fires may have few choices about the effects to which it is subjected, the target of an information operation can choose what signals to heed or ignore through the application of social and cultural filters.
- Although the effects of fires remain limited to targets within the designed radius of the ordnance, information effects can propagate well beyond the intended target and perhaps pick up strength, change, and create unintended consequences.
- Although the physical effects of fires are self-demonstrating, information must be interpreted by their target, which does so according to its own frame of reference.⁷²

Critical Themes of Marine Corps Operating Concept for Information Operations: The four unique traits of information are comprised of communications theory, psychological, and sociological concepts. Regardless of the OIE activity's scale, these four traits apply to the human variable of the target audience. TAA and the understanding of communications channels play a critical role when defining information as a form of non-kinetic fires. These four traits are critical to understanding the effects of

⁷¹ Deputy Commandant for Combat Development and Integration, Marine Corps Operating Concept for Information Operations. (Arlington, VA: Headquarters United States Marine Corps, 2013), 2, <https://www.quantico.marines.mil/Portals/147/Docs/MCIOCI/IORecruiting/MarineCorpsOperatingConceptforIO.pdf>.

⁷² Deputy Commandant for Combat Development and Integration, 6.

non-kinetic fires in the Information Environment, but the *Marine Corps Operating Concept for Information Operations* does not effectively convey the ways in which to control them. Within the academic literature review section of Chapter II, explanation will be given to the means in which the Marine Corps can more effectively dictate these four unique IO traits.

5. Marine Air Ground Task Force Information Environment Operations Concept of Employment

This document is results-driven, identifying milestones and major organizational factors required to bring the Marine Corps up-to-speed by providing a structure dedicated to Information Environment responsibilities. This document provided the initial detail necessary to develop and create the MIG. The MIG is the highest echelon of command within a MEF which primarily focuses on *Information* as a warfighting function. Depicted in Figure 13 is the MIG command structure. Each battalion within the MIG provides technical and niche capabilities to not only the MIG, but the entire MEF. For the scope of this thesis, the MIG HQ, Intelligence Battalion, and Radio Battalion perform the most vital roles. The roles of the MIG HQ, Radio Battalion, and Intelligence Battalion house the personnel, command billets, and military occupational specialties (MOSs) necessary to effectively work towards a mission of influencing human relevant actors and target audiences.

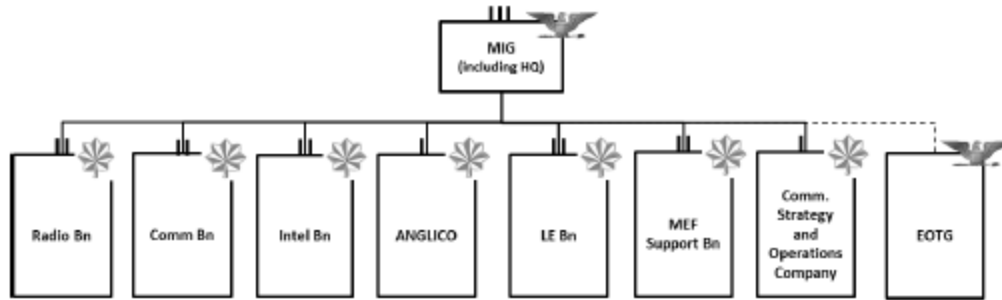


Figure 13. MIG Command Structure⁷³

Within the *Marine Air Ground Task Force Information Environment Operations Concept of Employment*, seven distinct Information Environment functions are defined (see Figure 14). This is critical to USMC OIE efforts because it provides achievable and defined missions with which to leverage resources and manpower to achieve effects in the Information Environment. The defining characteristic of these seven functions is how, given varying degrees of mission contexts, the function purpose remains the same.

⁷³ Source: Deputy Commandant for Combat Development and Integration, *Marine Air Ground Task Force Information Environment Operations Concept of Employment*. (Arlington, VA: Headquarters United States Marine Corps, 2017), 4, <https://www.trngcmd.marines.mil/Portals/207/Docs/wtbn/MCCMOS/FINAL%20MAGTF%20IE%20OPS%20CoE%202017-07-06.pdf?ver=2017-11-16-090225-057>.

1	Assure Enterprise C2 & Critical Systems	Actions to operate and defend networks, systems and information in order to enable command and control and the assured operation of critical systems.
2	Provide IE Battlespace Awareness	Actions to characterize the physical, informational and cognitive dimensions of the Information Environment in order to identify challenges, opportunities and comparative advantages for the MAGTF.
3	Attack & Exploit Networks, Systems, & Information	Actions in accordance with approved authorities to exploit or attack adversary networks, systems, signatures and information in order to create advantages for the MAGTF.
4	Inform Domestic & International Audiences	Actions taken to inform domestic and international audiences IOT build understanding and support for operational and institutional objectives.
5	Influence Foreign Target Audiences	Actions taken in accordance with approved authorities to influence select foreign audiences and affect their decision-making and behaviors IOT create conditions favorable to operational objectives.
6	Deceive Foreign Target Audiences	Actions to induce ambiguity, misunderstanding, resource misallocation and delayed actions IOT mislead adversary decision makers, reveal their strengths, dispositions, and future intent while protecting MAGTF's capability, readiness, posture and intent.
7	Control IW Capabilities, Resources, & Activities	Actions taken to provide the commander with the ability to exercise command and control and integrate assigned Marine, Naval and Joint information assets and enhance the MAGTF's ability to operate in the Information Environment.

Figure 14. Information Environment Operations Functions⁷⁴

The IE Ops Functions, coupled with the MIG command structure provide a rational construct to organize and make actionable the OIE capabilities. Throughout most military documents reviewed for this thesis, the IRCs are typically highlighted as the dominant means of generating Information impacts. What the *Marine Air Ground Task Force Information Environment Operations Concept of Employment* does is provide a rational institutional response to the statement from JP 3-0, “All military activities produce information.”⁷⁵ All other MSCs within a MEF conduct military activities across the ROMO, generating Information Environment impacts. Each of these MSCs maintains its own COC. The MIG COC serves as the central node for integrating the seven IE Ops Functions across all other command and control nodes within the MEF.⁷⁶ This line-and-block approach to organizing information flow enables the MEF to coordinate and deconflict the information generated as a result of the MEF’s military activities.

⁷⁴ Source: Deputy Commandant for Combat Development and Integration, 2.

⁷⁵ Joint Chiefs of Staff, *Joint Operations*, III-17.

⁷⁶ Deputy Commandant for Combat Development and Integration, 7.

Maintaining cognizance of the MEF's military activities is not the only role the MIG HQ and MIG COC should be conducting. Providing constant situational awareness of the Information Environment is a daunting task, but one which must be carried out in an effort to provide commanders and key decision makers with timely, relevant, and accurate information. The IE Ops Running Estimate (see Figure 15) is a critical product defined in the *Marine Air Ground Task Force Information Environment Operations Concept of Employment*. The running estimate was a concept generated to directly solve an existing USMC deficiency: a commander's need to own a touchpoint of centralized and comprehensive information to understand the Information Environment of their AORs.⁷⁷

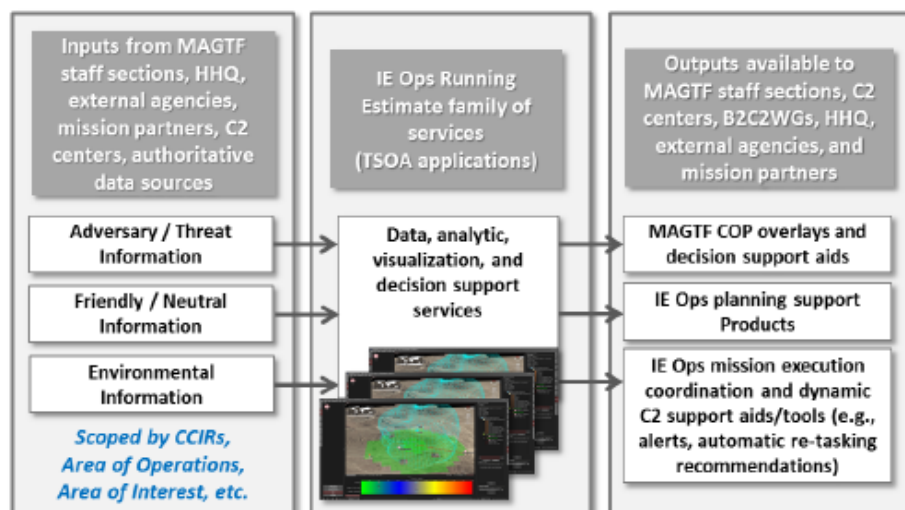


Figure 15. IE Ops Running Estimate Concept⁷⁸

Critical Themes of Marine Air Ground Task Force Information Environment Operations Concept of Employment: What is displayed in this document is a holistic approach to MEF-level OIE organization. The details provided for the MIG command construct and MIG COC address the requirement for maintaining persistent situational

⁷⁷ Deputy Commandant for Combat Development and Integration, 18.

⁷⁸ Source: Deputy Commandant for Combat Development and Integration, 18.

awareness of the Information Environment. The structural design of the MIG command allows for an organized effort in integrating the seven IE Ops Functions across MEF operations. In the process of integrating the seven functions, the MIG ensures the six operational capability areas (see Figure 16) are leveraged to achieve the seven functions.⁷⁹

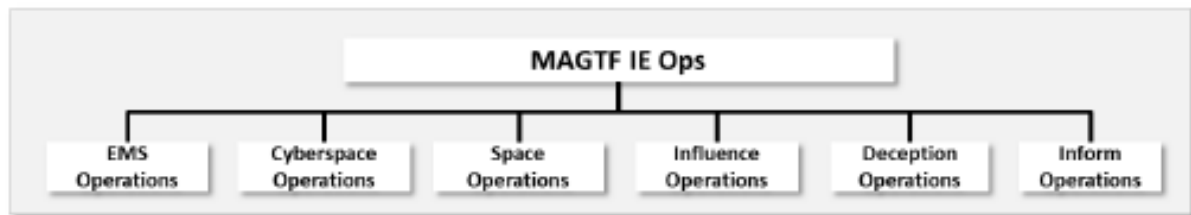


Figure 16. Six Operational Capability Areas of IO⁸⁰

Influence Operations and Inform Operations are the two capability areas most aligned to the premise of this report. Both functions have a strong focus on TAs and the utilization of information as a means to influence the cognitive dimension within human relevant actors. By integrating with the rest of MEF staff and planners, the MIG maintains cognizance of all MEF military activities. As the MEF activities are conducted, audiences are observing and processing their observations in the cognitive dimension. In the absence of appropriate unit-level OIE planning factors, the MEF activities are uncontrolled OIE projectiles. An organizational benefit would arise from the delegation of the Influence and Inform capability areas to smaller unit operational staffs. These two areas have an inherent nature of *observation* which cannot be eliminated. The greatest bid for success in obtaining holistic control of a MEF's Information Environment impacts is to integrate the Influence and Inform concepts into the initial stages of operational planning, most appropriately at the battalion level.

⁷⁹ Deputy Commandant for Combat Development and Integration, 22.

⁸⁰ Source: Deputy Commandant for Combat Development and Integration, 23.

C. SCIENTIFIC LITERATURE

1. Diffusion of Innovations

Backed with a significant amount of case studies and anecdotal evidence, *Diffusion of Innovations* effectively explains the process by which ideas promulgate throughout a human population. The process of diffusion is intimately associated with Information Environment elements, especially those comprising the cognitive dimension. Rogers' Diffusion concept is comprised of four main elements:

- The Innovation
- Communications Channels
- Time
- A Social System⁸¹

When analyzed together, these four elements provide the lifespan of a message. In the scope of OIE and this thesis, these elements must be identified for each TA that will observe Marine Corps activities. Once the TA observes the activity, their perception will be formulated and then begin the diffusion life cycle. TAA conducted by intelligence professionals should identify defining characteristics of the communications channels used by the TA, the social system and cultural idiosyncrasies which the TA belongs to, and an assessment of the time necessary for the innovation to promulgate throughout the TA. After the refinement of these three elements, the innovation can be created. For this report, the innovation will be synonymous with the OIE message.

Rogers breaks down the adopters of an innovation into five separate categories: Innovators, Early Adopters, Early Majority, Late Majority, and Laggards.⁸² Each of these typecasts of individuals are defined by unique character traits which influence the rate at which they adopt new technologies or beliefs. Having the ability to conduct a thorough TAA will allow Marine Corps planners to identify the innovators within a population,

⁸¹ Rogers, *Diffusion of Innovations*.

⁸² Rogers, 282-285.

thereby facilitating a more specific message and generate a higher percentage of success with getting the desired message into a system.

Innovators comprise approximately 2.5% of a population; display risky, venturesome character traits; and are usually the entry point into a system of people who adopts the innovation from an external system.⁸³ Early Adopters represent 13.5% of a population; are generally well-respected by peers within their social system; and serve to push the acceptance of an innovation to “critical mass” as a result of accepting and then publicly endorsing the innovation.⁸⁴ While all five categories of adopters are important; within the realm of OIE, it is assessed Innovators and Early Adopters would be the most lucrative TAs given their critical roles in promoting the message.

2. Influence: The Psychology of Persuasion

Dr. Robert Cialdini intuitively and methodically defines six influence techniques which shape human-to-human interaction. Of note, this book does not delve deeply into emotional considerations and is not explicit in describing emotional responses to the techniques. However, Dr. Cialdini’s book is predicated on a very powerful mechanic of human behavior: *trigger features*. Another way to title his six influence techniques, Cialdini’s six triggers are unique social behaviors which have been observed to generate frequently consistent responses from the target. In essence, one of these six techniques is put into play and the target’s mind is “triggered” to begin performing a near-automatic and predictable response relative to the technique chosen.

The primary benefit of this reading is an explanation of the application and reasoning to the success of the six influence techniques. These techniques define basic human behaviors and can aid in predicting responses to OIE messaging. Dr. Cialdini’s six techniques are: Reciprocation, Commitment and Consistency, Social Proof, Liking,

⁸³ Rogers, 281-283.

⁸⁴ Rogers, 281, 283-284.

Authority, and Scarcity.⁸⁵ While these are not military doctrinal terms, they have been proven to elicit emotional responses from individuals - a benefit which is directly applicable to the fifth OIE Operational Function: Influence Foreign Target Audiences. These six techniques may serve as a quick reference for novice OIE planners in understanding generalized influence and response concepts.

3. Age of Propaganda: The Everyday Use and Abuse of Persuasion

Citing Dr. Cialdini's influence techniques, Drs. Anthony Pratkanis and Elliot Aronson build upon these concepts in the realms of persuasion and influence. In *Age of Propaganda: The Everyday Use and Abuse of Persuasion*, Pratkanis and Aronson detail the emotional and psychological responses of these techniques as well as validate two critical themes linked to OIE and influence. Pratkanis and Aronson connect effective influence to TA emotion, as well as provide four characteristics of effective messaging:

- The message must attract the recipient's attention.
- The arguments in the message must be understood and comprehended.
- The recipient must learn the arguments contained in the message and come to accept them as true.
- Finally, the recipient of the messages acts on this learned knowledge when there is an incentive to do so.⁸⁶

These four criteria can easily be transposed into the military OIE realm and serve as a simplistic guide to defining successful influence operations. This concept is enhanced by the addition of targeting relevant actor emotions. Effective influence impacts emotions leading the target to pursue relief of a negative emotion, or sustainment of a positive one.⁸⁷

Pratkanis and Aronson capture the importance of human emotions in decision making. During the latter part of *Age of Propaganda: The Everyday Use and Abuse of Persuasion*, special attention is given to *fear* and its effectiveness with eliciting behavior

⁸⁵ Robert Cialdini, *Influence: The Psychology of Persuasion* (New York: Harper Business, 2006).

⁸⁶ Anthony Pratkanis and Elliot Aronson, *Age of Propaganda: The Everyday Use and Abuse of Persuasion*, Revised ed. (New York: Holt Paperbacks, 2001), 27.

⁸⁷ Pratkanis and Aronson, 51.

responses. The authors reference psychological studies conducted by Dariusz Dolinski and Richard Nawrat as well as Howard Leventhal. With Dolinski and Nawrat, the two researchers would watch a crosswalk for jaywalkers and subsequently blow a police whistle to momentarily instill fear in the subject.⁸⁸ The two would then confront the jaywalkers and ask for their compliance in answering a questionnaire. The two identified that when levels of fear spiked and were then relieved; the subjects complied with the questionnaire request significantly more than the jaywalkers who did not receive a fake police officer whistle blast.⁸⁹ Their overall conclusion was the spike in fear, followed by subsequent relief caused the individual to be distracted from fully analyzing the request, leading to more compliance.⁹⁰

Howard Leventhal and a team of researchers further identified that not only arousing fear in subjects, but coupling it with detailed instructions on how to take action and resolve that fear led to a remarkable increase in actual behavior of the subjects.⁹¹ Conducting a study with college students, Leventhal and team advertised a tetanus shot campaign. During this campaign, there were three groups - one group received high-fear advertisements about tetanus as well as detailed instructions on how to get the shot; a second group only received the high-fear advertisement; and the final group did not receive the high-fear advertisement, only the detailed instructions.⁹² Out of the three groups, the fear and instruction group produced a 28% success rate of getting the shots; the fear-only group had a 3% success rate, and the instruction-only group was 0%.⁹³

This evidence further backs the earlier statement by Pratkanis and Aronson that humans wish to alleviate negative emotions while prolonging positive ones. By instigating a negative emotion to trigger and subsequently detailing the remedy for that specific

⁸⁸ Pratkanis and Aronson, 210.

⁸⁹ Pratkanis and Aronson, 211.

⁹⁰ Pratkanis and Aronson, 211.

⁹¹ Pratkanis and Aronson, 213.

⁹² Pratkanis and Aronson, 213.

⁹³ Pratkanis and Aronson, 213.

emotion, one can increase the probability of generating behavior actions. In the scope of this thesis and OIE, the desired behavior of the TA would be the action within the detailed instructions provided in a well-crafted influence message.

In an effort to effectively target emotions, building commonalities and a sense of “one-ness” with others aids the process. Identified by Henri Tajfel, the *minimum group paradigm* concept repeatedly shows complete strangers, when given trivial commonalities amongst themselves, tend to behave favorably towards and have better perceptions of their in-group and display opposite behavior and beliefs towards members of the out-group.⁹⁴ This persuasive technique is powerful and capitalizes on mankind’s social nature. The desire to belong and be accepted, the emotional response of happiness resulting from inclusion or celebrating the in-group’s success - this concept leverages everyone’s inherent desire for higher self-esteem.

4. Story Smart: Using the Science of Story to Persuade, Influence, Inspire, and Teach

In order for an audience to be influenced by a message, they must remain engaged. One of the best ways to maintain engagement is through emotional involvement. Through neural lab research, Dr. Kendall Haven identified emotional involvement and engagement had a positive correlation.⁹⁵ He and his team observed subjects who displayed three traits simultaneously: active physiological indicators of engagement; active neurological signatures associated to engagement; and active neurological signatures of emotional involvement.⁹⁶ This is a critical concept for OIE. To make this concept more tangible, this report will utilize three definitions from Kendall Haven that form a cascading relationship with each other:

- Engagement: *Emotionally* laden attention.
- Attention: Dedicated mental focus over time.

⁹⁴ Pratkanis and Aronson, 216-217.

⁹⁵ Haven, *Story Smart*, 18.

⁹⁶ Haven, 18.

- Influence: Changing another person's beliefs, attitudes, values, knowledge, or behavior.⁹⁷

In order to influence a target with a message, the target's attention must be captured for a period of time so as to receive and begin synthesizing the message. In order to maintain capture and maintain attention, the target must be engaged with the message. For a target to be truly and most-effectively engaged, they must be emotionally stimulated by the message.

At the heart of *Story Smart* are four major elements this report benefits from. The Neural Story Net (NSN), the Make-Sense Mandate, the eight essential elements of a story, and the Main Story Line. The NSN is an explanation as to why all human brains think in story form. Before any sensory perceptions make it to the conscious part of the brain, they must first be triaged by the subconscious part.⁹⁸ This subconscious part is what Kendall Haven termed the NSN. The NSN utilizes story structure to rationalize the incoming sensory information into a situation we understand and then relay the sensical situation to the conscious part of the brain.⁹⁹ The drive to rationalize the situation is so intense that the NSN will generate assumptions, generate new information and details to fill the gaps, and even ignore received information. This neurological need to understand is called the Make Sense Mandate.¹⁰⁰ The NSN and Make Sense Mandate comprise a fundamental planning concern for OIE: the crafted message intended for the TA is not guaranteed to be the message they receive and understand. NSN activity will force the TA to add, subtract, and shuffle prior knowledge, experiences, and conceptual relationships to modify the message so it makes sense to them.

Because the NSN works utilizing story structure - a structure refined over thousands of years of human development, the use of story structure to craft a message is a form of

⁹⁷ Haven, 18.

⁹⁸ Haven, 32.

⁹⁹ Haven, 33.

¹⁰⁰ Haven, 32.

backwards planning. To craft a message using story structure, Dr. Haven's eight essential elements are needed:

1. Characters: The characters that populate essential character positions in the story.
2. Traits: Selected elements of character description used to control receiver attitude toward, and relationship to, story characters.
3. Goal: What a character needs/wants to do/ get in a story.
4. Motives: The sets of drivers that make a goal important to a character. Goals and motives are the primary source of story suspense.
5. Conflicts and Problems: The sets of obstacles that stand between a character and an established goal and block that character from reaching the goal.
6. Risk and Danger: The likelihood of failure (risk) and the consequences of failure (danger) created by problems and conflicts that a character must face. Risk and danger are the primary source of story excitement. Excitement and suspense are the primary sources of story tension.
7. Struggles: The sequence of events a character undertakes (struggles) to reach a goal highlighted by the climax scene (confrontation with the last and greatest obstacle) and the resolution scene.
8. Details: The character-, sensory-, scenic-, and event-specific descriptors used to create, direct, and control receivers' story imagery.¹⁰¹

When these eight elements are completed, the necessary information is provided to engage a target. After the elements are completed, the Main Story Line can be formed. The Main Story Line (see Figure 17) is the message crafter's vehicle to release the message to the TA. Although not depicted, all eight elements are present within a completed Main Story Line. Instead of laying out the eight elements, the Main Story Line focuses heavily on the progression of the characters with the details, struggles, risk and danger, conflicts and problems, and traits as assumed additions included to form a final well-crafted story.

¹⁰¹ Haven, 67.

The Main Story Line

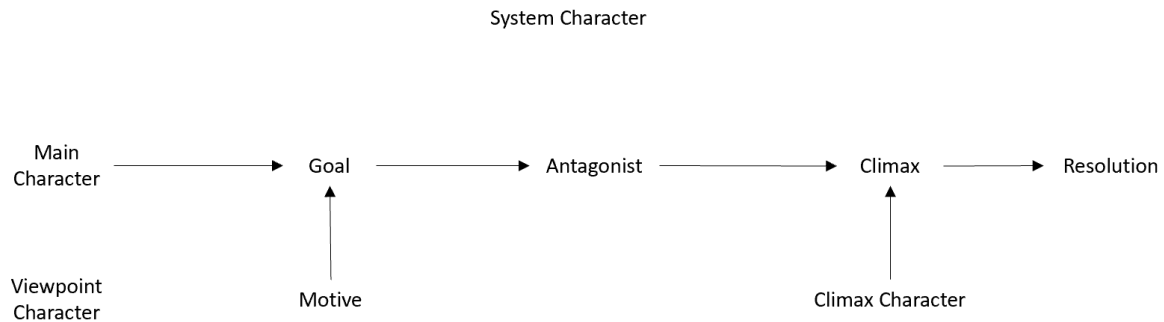


Figure 17. Dr. Kendall Haven's Main Story Line Concept¹⁰²

5. Story Proof: The Science Behind the Startling Power of Story

The second Dr. Haven book included in this report is comprised of a career's worth of scientific research; both first-hand as well as analysis and reviews of findings from six different fields of study. Dr. Haven's work is structured into four principal themes: what defines a story, the relationship of story to the mind and brain, mind mechanics, and concluding with scientific research studies validating his story structure concepts.

There are two vital concepts within *Story Proof* that lend credence to the importance of storytelling as a form of influence. The first is a set of seven governing principles which the conscious human mind abides by to process incoming information. The second is a list of 11 mental techniques identified by Dr. Haven and researchers to be active within the subconscious mind to facilitate the functioning of the seven principles. Dr. Haven's seven governing principles explained are:

1. Our experiences physically construct neural maps within the brain, forming a type of quick-reference model which we use to interpret new inputs.
2. The human mind requires the information being processed to make sense. We will perform a number of mental processes to provide rationalization to the information we are given.

¹⁰² Source: Haven, 107.

3. The human mind requires meaning and will make assumptions to formulate it from the presented narrative.
4. When observing a character, the human mind assumes their actions are driven by a specific intent.
5. Incomplete information is normal, leading to the gaps being quickly filled by pre-existing stereotypes and understood situational rules to make sense of the situation.
6. Viewing narratives from the perspective of a character more effectively promotes understanding of the message within the narrative.
7. Character conflict and struggle generates meaning for the person receiving the narrative.¹⁰³

Dr. Haven's 11 techniques are:

1. Assumptions
2. Cheat Sheets
3. Expectations
4. Inference
5. Pattern Matching
6. Prior Knowledge
7. Binary Opposition
8. Blending
9. Language and Syntax Rules
10. Emotions Rule
11. Details¹⁰⁴

In relation to OIE and the scope of this thesis, not all 11 techniques will be covered. Instead, this report will focus on a select few which bolster the effectiveness of OIE messaging in its context of the ECPP. Prior Knowledge, Inference, Assumptions, Expectations, and Cheat Sheets are all closely associated to a TA's Temporal Lens, a critical component of Target Audience Analysis.

Prior Knowledge is essentially a summation of all things learned by an individual. Human interactions, experiences, education, and social observations build an individual's repository of information with which they view the world. From a person's prior

¹⁰³ Kendall Haven, *Story Proof: The Science Behind the Startling Power of Story* (Connecticut: Libraries Unlimited, 2007), 33-43.

¹⁰⁴ Haven, 45-46.

knowledge, they can apply existing standards and lessons learned from previous experiences to fill in information gaps of a situation. The application of this prior knowledge comes in the forms of inference, assumptions, expectations, and cheat sheets. Although similar, inference and assumptions differ in that inference is a logically-based process leading to a judgement or decision while the assumption process also leads to a judgement or decision, but is a more cavalier mental event where supporting evidence is not required.¹⁰⁵

Expectations serve as a filter for a person going throughout their daily life. All of us have developed generalized understandings of our surroundings and a basic, “The way things are,” mentality. When an observation falls outside of the realm of what is defined as a normal expectation, then the triggering event becomes flagged for our conscious mind to pay attention to it.¹⁰⁶ Also known as neural maps or neural schema, cheat sheets serve as neural shortcuts; linking fragmentary pieces of information together utilizing applicable prior knowledge references.¹⁰⁷

As described, the five chosen techniques share strong commonalities in their definitions and share conceptual overlaps in the way they fill in the gaps caused by fragmented information. The most OIE-applicable theme amongst them is that in order to effectively leverage these techniques through OIE messaging, the audience must be defined and understood. The audience’s Temporal Lens must be defined in such a way that the prior knowledge repositories are identified. A thorough TAA process must identify the psychological, informational, cultural, physical, and social elements which contribute to the development of an individual’s prior knowledge.

¹⁰⁵ Haven, 46-52.

¹⁰⁶ Haven, 51.

¹⁰⁷ Haven, 48-50.

6. Dr. Paul Zak's Research Findings

Dr. Paul Zak and his research team, along with funding from the Defense Advanced Research Projects Agency (DARPA) identified very strong correlation between story structure and brain chemical response. Dr. Zak discovered two major requirements that comprised an effective story. The story must gain and maintain an audience's attention, and the story must "transport" the audience into the world of the character.¹⁰⁸ In essence, stories foster the following series of events to transpire with an audience.¹⁰⁹ First, when a human is focused and pays attention, signs of mental arousal begin and stress hormones become produced. Secondly, after attention has been focused long enough, a process called "transportation" occurs during which the human empathizes with the character of the story.

During his work with DARPA, Dr. Zak presented his subjects with a heart-wrenching and climactic video in which a young boy named Ben was dying of cancer, and Ben's father who was narrating the video and discussing the difficulty of coping with the scenario. The subjects who observed the video were documented as expressing the distress and empathy emotions.¹¹⁰ Through blood sampling, Dr. Zak identified the brain produced Cortisol, which correlated to the distress emotion, leading to added focus on the specific stimuli of the distress; and Oxytocin, which correlated to the empathetic emotion.¹¹¹ Further, Zak and team went on to re-run the study with the added measurements of heartrate, skin conductance, and breathing patterns. There were now two groups of subjects - those who witnessed the heart-wrenching and climactic video, and those watching a less-eventful video of Ben and his father walking in a zoo. The audience with the zoo video quickly lost attention, while those with the climactic video registered distress and empathy

¹⁰⁸ Paul Zak, "How Stories Change the Brain," *Greater Good Magazine*, December 17, 2013, https://greatergood.berkeley.edu/article/item/how_stories_change_brain.

¹⁰⁹ Zak, "How Stories Change the Brain."

¹¹⁰ "Empathy, Neurochemistry, and the Dramatic Arc: Paul Zak at the Future of StoryTelling 2012," October 3, 2012, Future of StoryTelling, video, 5:58, 2012. <https://www.youtube.com/watch?v=q1a7tiA1Qzo&t=99s>.

¹¹¹ Future of StoryTelling.

responses.¹¹² After measuring levels of Oxytocin and Cortisol, the team was able to predict with 80% accuracy which subjects would be influenced to donate part of their research payments to a charity after the conclusion of watching the video.¹¹³

¹¹² Future of StoryTelling.

¹¹³ Future of StoryTelling.

III. SEMI-STRUCTURED DISCUSSION RESEARCH

Joint and Marine Corps planning and OIE doctrine consistently acknowledged human emotional considerations with regard to military operations. However, detail is lacking in doctrinal guidance regarding the actual efforts necessary to facilitate emotional considerations. Neurological psychology studies have shown a direct, positive correlation between emotional involvement and mental engagement in test subjects. With regards to influencing a target audience, the crafter of the message must engage the audience in such a manner as to retain that audience's attention. This is a foundational element to the fifth function of OIE: Influence Foreign Target Audiences. The audience must be emotionally engaged to receive and respond to the message. A gap in USMC OIE capabilities is the lack of attention and resources given to crafting an OIE message focused on most-effectively engaging a target's emotions.

JP 3-0 states, "All military activities produce information."¹¹⁴ This concept predicated the series of questions which were asked during all semi-structured discussions. The intent of the discussions was to identify the frequency of Marine officers' planning experiences with regards to OIE considerations. More specifically, when and how did they factor human emotion into their military plans and operations? The statement from JP 3-0 is profound and encompasses all aspects of the armed services. Large-scale combat operations only account for a small percentage of active military activities. The majority of the military is engaged in the "train, man, and equip" processes of maintaining a standing military. Small-unit training events, humanitarian operations, and Theater Security Cooperation (TSC) operations are more frequent in today's global political climate than declared combat operations. All of these other-than-combat activities generate information, as defined by JP 3-0. Through the conduct of the semi-structured discussions, it was

¹¹⁴ Joint Chiefs of Staff. *Joint Operations, Joint Publication 3-0*. Washington, D.C.: Joint Chiefs of Staff, 2018.

identified how battalion-level and below units incorporated human emotional considerations in their other-than-combat activities.

A. SEMI-STRUCTURED DISCUSSION METHOD

Ten Marine officers took part in independent semi-structured discussions with the author of this report. Due to COVID-19 restrictions, all discussions were conducted via Microsoft Teams. Each participant in the study volunteered freely by responding to an initial email soliciting research participation. Participants included four USMC majors and six USMC captains representing six different military occupational specialties across each of the major subordinate commands of a MEF: the Division, the Marine Logistics Group, and the Marine Aircraft Wing. The following series of questions was standardized and used during the conduct of all ten discussions.

1. Explain the TO/TE structure of the command.
 - Has the unit modified the TO/TE structure to fit its specific context? If so, describe the modifications?
 - What is your specific billet within your unit?
 - Where within the described command does it reside?
 - What are the duties of your billet?
 - What considerations does your billet incorporate regarding a target audience's *emotion*?
 - What considerations does the unit have regarding a target audience's *emotion* when conducting its mission?
2. What doctrine dictates the unit's activities regarding Influence Operations?
 - Describe how this doctrine dictates and/or guides the unit (or your billet) with regards to *emotional* management of the unit's/billet's audience?

3. Who does the unit support as its customers? (i.e., does the unit align its support to other specific units, areas of operation (AOs), or specific mission sets?)
 - When supporting its customers, how does the unit factor its target audience's *emotions* into the planning and conduct phases of the support?
 - How does the unit assess effectiveness of its message with regards to audience *emotion*?
 - Describe how the unit provides OIE support (emphasis on *emotional* management) in the following two statuses: (1) A forward-deployed status. (2) A reach-back/garrison status.
4. Does the unit have OIE-specific requirements? (not PIRs or CCIRs)
 - If "Yes," what office or OPR generated them?
 - If "Yes," how many have terminology related to "*emotion(s)*?"
5. Describe the unit's process for crafting an OIE message.
 - Does the unit's process include differences based on short-term and long-term timelines with regards to crafting an IE Ops message?
6. Has the unit documented any additional observations with regards to the concept of human *emotion* and its relation to IE Ops planning? If so, describe them?

B. SEMI-STRUCTURED DISCUSSION FINDINGS

After conducting all ten semi-structured discussions, the responses were reviewed and analyzed to identify the presence of any themes. The following themes were identified.

- In general, at the battalion and company levels within the Marine Corps, there is an absence of emotional considerations of a target audience when planning and executing operations.
- Without being fully aware of doing it, company-level and battalion-level leadership do consider OIE variables in their operations. These OIE variables are focused on maintaining a positive USMC perception from the local population. A culture fostered by Marine Corps leadership centered on the narrative of every Marine being an ambassador of the Marine Corps and an ambassador of the United States promotes small-unit leadership and actions to ensure pro-Marine Corps perceptions are generated as a result of Marine Corps activities.
- For those who answered in the affirmative to Question 4, the theme identified was their units focused on Operational Security and Information Security requirements. OIE planning considerations concerning human emotional factors and influence considerations were absent in battalion and company-level planning.
- Regarding OIE doctrine and guiding policy, the Marines who participated in the discussions shared similar experiences. Commander's guidance was the primary authority and focused on perceptions generated by Marines' good order and discipline and professional competency being publicly displayed.

The results of the semi-structured discussions identified battalion and company-level military activities are absent of human emotional considerations. However, there are indications OIE has been partially integrated into Marine Corps operational planning processes, even if it is in a limited capacity. Minor considerations of perception and perception management are interconnected with small-unit leadership and company-grade officer guidance. Additionally, Operational Security and Information Security themes appeared common in most of the semi-structured discussion responses.

The semi-structured discussion results combined with the literature review suggest an absence of OIE doctrine at the battalion and company-level operations planning sections is directly related to the absence of TA emotional considerations. Through the lack of doctrine, the Marine Corps is not capitalizing on the massive amount of information generated as a result of its battalion-and-below military activities.

THIS PAGE INTENTIONALLY LEFT BLANK

IV. ANALYSIS

The ECPP is derived from Dr. Kendall Haven's Main Story Line process. The Main Story Line does not perfectly overlay on Marine Corps planning or OIE doctrine however, the utilization of the Main Story Line follows story architecture, which is proven to engage a target audience's attention, foster emotional investment, and subsequently expose the audience to receive and synthesize a desired message. The Main Story Line is adjusted to most appropriately align with inherent Marine Corps planning procedures stemming from the MCPP.

There are two echelons within a MEF that benefit from the proposed ECPP. The first echelon is the battalion. This unit is the intended user of the ECPP, incorporating this process into their battalion-level organic operational planning procedures. The company-grade officers and staff non-commissioned officers, as well as the battalion commander and battalion operations staff will be afforded the opportunity to craft and organize appropriate emotions-driven narratives for their operations and training evolutions. All they must do is follow the ECPP timeline and template and input their OIE considerations. The second echelon benefitting from the ECPP is the MIG. While not the command focused on completing the requirements within the ECPP, the MIGs will receive digital copies routed to them through the appropriate chains of command. Theoretically, every battalion would apply the use of the ECPP to their operational planning processes. Whenever an event begins to be planned at a battalion, they will commence the ECPP in conjunction with their organic planning processes. While completing the ECPP, the battalion operations officer will be required to provide their operational details, to include the intended story structure details for emotional considerations, to the MIG. The MIG will then be able to take the information provided to them and update their MIG COC, maintaining positive accountability of their respective MEF's planned operations. This will be conducted in conjunction with the MIG, as a major subordinate command, already maintaining liaison and a close working relationship with the MEF G-3 operations and planning shops. Since the MIG maintains many of the personnel trained and authorized to

execute the IRCs, this proactive feeding of information from the battalions will allow the MIG to “reach down and pull up” opportunities which it can then leverage its IRC-approved personnel to capitalize upon. Finally, the MIG will have the necessary information to update the IE Ops Running Estimate product.

In essence, the ECPP allows the MIGs to passively receive all subordinate MEF battalion’s operations and OIE plans. While the MIG manages the MEF CG’s overall intent for MEF perceptions and messaging, the MIG will now have an abundance of emotionally-focused narratives supplied to them for larger MEF-level exploitation and broadcast. With the MIG controlling the holistic MEF OIE mission, the MIG can subsequently deconflict and coordinate the messages provided in the ECPP. Additionally, pending delegated authority from the MEF CG, the MIGs can modify, cancel, or combine battalion-level ECPP narratives.

A secondary benefit to an ECPP incorporated at the battalion level is the hardening of Marines to adversary emotional manipulation. Similar to annual training requirements and the manner in which Marines are sensitized over a prolonged period of time to the lessons-learned from the training requirements; so too will Marines become more aware of Information Environment concerns. The ethos of, “Every Marine is a rifleman,” echoes across the Marine Corps because it is engrained into the identity of each Marine from the first day they commission or enlist. It is subsequently readdressed each year through annual pistol and rifle range qualifications. So too must Marines become proficient in Information. A consistent reminder of OIE considerations throughout all operations and training planning will afford the individual Marine ample time to consider the Information Environment and the impacts within their daily duties.

It is important to understand each battalion will have its own internal planning procedures, most likely dictated by the battalion commander or battalion operations officer. However, even though these internal procedures and policies exist, they will still be rooted in the MCPP. Not every stage of the MCPP is appropriate for the ECPP to be integrated, and the ECPP is not limited to only being applied within the framework of the MCPP. The purpose of the ECPP is to frontload the planning process with a realistic and user-friendly

addendum to help plan for IE impacts generated from audience observations. In doing this, planners are better postured to consider audience emotional responses and shape those responses to achieve desired behaviors.

A. PROPOSED ECPP

Recalling from Chapter II, the MCPP is partitioned into six distinct phases. The most critical phases where the ECPP should be applied are Phase 1: Problem Framing (see Figure 18), Phase 2: COA Development (see Figure 19), and Phase 3: COA Wargaming (see Figure 20). During Phases 2 and 3 of the MCPP, planners generate multiple COAs to present the commander with options. The ECPP needs to coincide with all potential COAs to ensure its message aligns with the commander's intent of all viable operational options. As these three phases are conducted, the ECPP Narrative Templates can be adjusted to best align with the specific COA it is aligned.

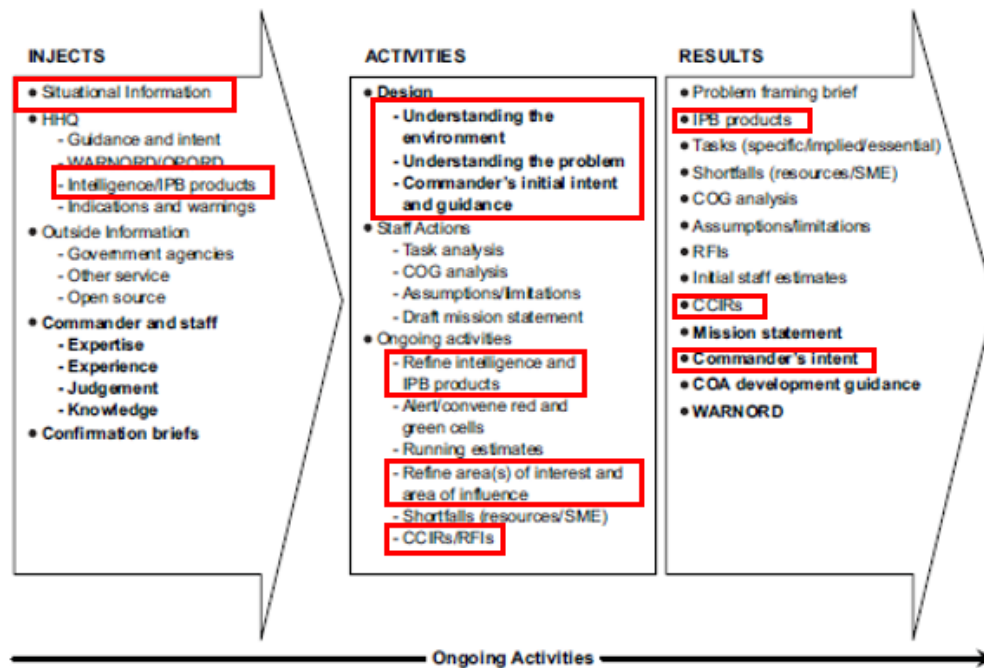


Figure 18. MCPP Phase 1 with ECPP Considerations Annotated.¹¹⁵

¹¹⁵ Adapted from Department of the Navy, *Marine Corps Planning Process*.

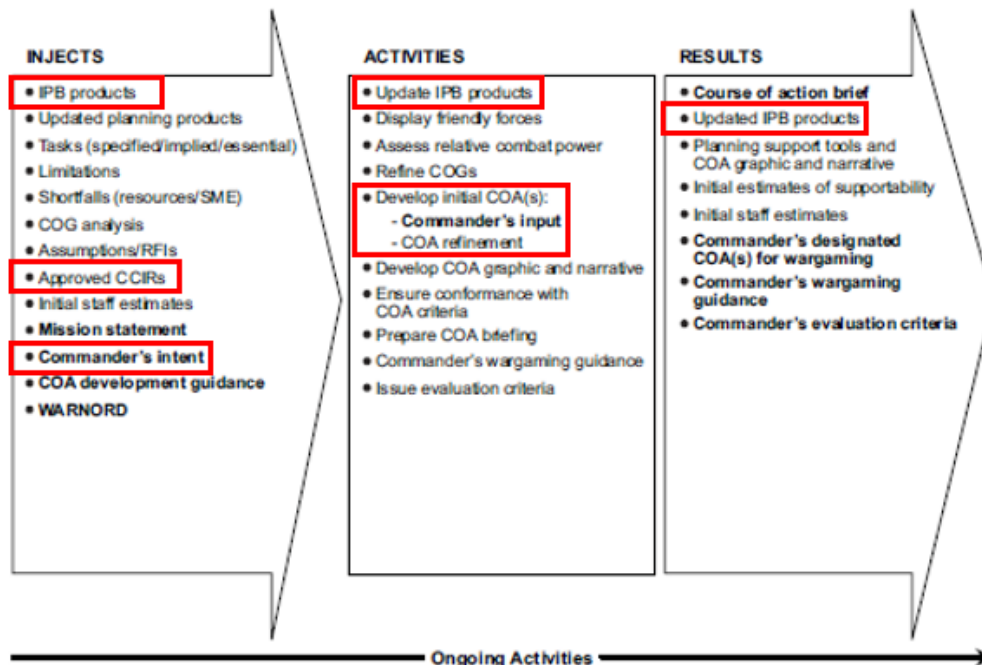


Figure 19. MCPP Phase 2 with ECPP Considerations Annotated.¹¹⁶

¹¹⁶ Adapted from Department of the Navy, *Marine Corps Planning Process*.

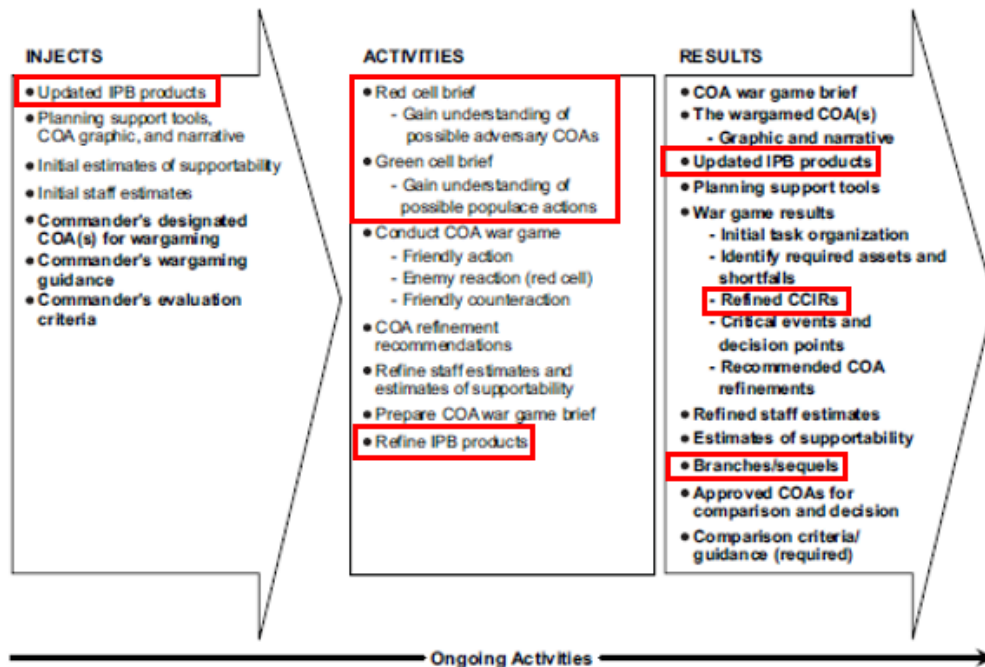


Figure 20. MCPP Phase 3 with ECPP Considerations Annotated.¹¹⁷

During IPB in Phase 1, Intelligence analysts should utilize the ASCOPE method referenced in Chapter II, as well as the Temporal Lens concept to identify critical human variables which define the cognitive dimension of the desired Target Audience. The ASCOPE method will identify critical physical domain and IE planning considerations, to include appropriate communications channels. Battalion-level intelligence shops might not have the organic manpower to complete the IPB, ASCOPE, and Temporal Lens products on their own. A solution for this is to request personnel support or pre-existing products from the MIG's intelligence analytic personnel who are focused on defining the MEF's AOs through all source intelligence and analysis.

At the onset of Phase 1, IPB begins. During IPB, target audience analysis should be conducted which will allow planners to refine the messaging and emotional considerations needed to optimize effectiveness influencing the target audience. From the

¹¹⁷ Adapted from Department of the Navy, *Marine Corps Planning Process*.

initiation of commander's guidance, the process follows the ECPP Timeline (see Figure 21).

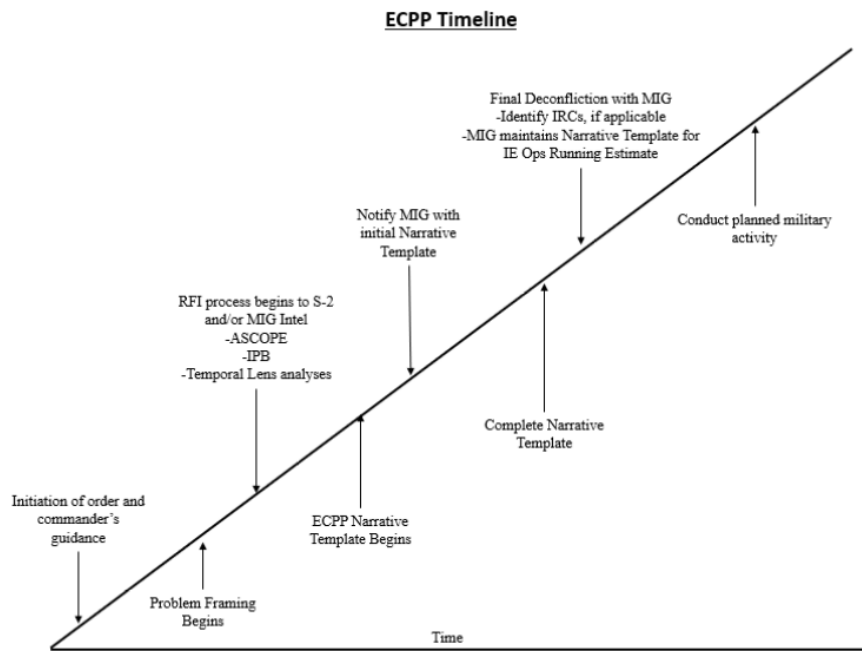


Figure 21. Proposed ECPP Timeline

After receiving adequate ASCOPE and Temporal Lens information, Requirements one through eight can be completed on the ECPP Narrative Template (see Figure 22).

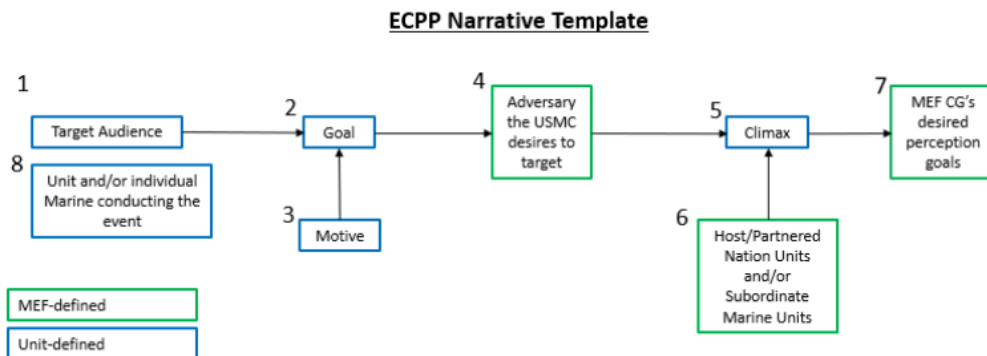


Figure 22. Proposed ECPP Narrative Template

Requirements four, six, and seven are MEF-defined requirements. The information is supplied by the unit completing the ECPP Narrative Template, but the information is retrieved from higher-headquarters guidance. Requirements one, two, three, five, and eight are all identified and completed by the unit. Each requirement is defined as:

1. The Target Audience the unit is anticipating to have an IE effect upon. When completing the subsequent requirements, consideration should be given on how to appropriately communicate with the Target Audience given the amplifying information garnered from the IPB, ASCOPE, and Temporal Lens products.
2. The broadcasted goal of the unit's mission. What does the unit desire to achieve through the conduct of this military activity?
3. The explanation as to why the unit's goal is of importance.
4. When crafting the adversary category, this entity is defined competition of higher headquarters. This can be conceptual, such as an issue within the Marine Corps regarding cultural deficiencies, or this can be a defined terrorist organization or nation the U.S. is in competition with.
5. The culminating event of the military activity intended to be viewed by the Target Audience.
6. Additional units or personnel higher-headquarters desires to build trust and gain favor with. This entity is intended to be projected as a valuable ally or competent supporter to higher headquarters' causes.
7. The resolution to the unit's activity; ultimately leading to the accomplishment of the MEF CG's perception management goals.
8. The unit conducting the military activity. The narrative will be told from the unit's perspective throughout the conduct of the activity.

V. CONCLUSIONS AND FUTURE RESEARCH

A. CONCLUSIONS

The summation of all research efforts has identified six conclusions:

1. Information is generated as a result of all military activities.
2. OIE is in the process of being integrated as a warfighting function, however the Marine Corps can enhance its small unit planning actions to better account for Information Environment impacts.
3. Within governing military doctrine, human emotional considerations are present in defining OIE responsibilities and OIE benefits, even if only topical.
4. Behavior sciences have come to identify a prominent relationship between emotions and decision-making processes in human audiences.
5. Effective story architecture is a highly effective influence technique which leverages human emotions to convey messages.
6. A simplistic planning addendum based on story architecture can be incorporated to provide Marine Corps planners with a means to factor human emotional considerations.

These conclusions highlight a gap between doctrinal guidance and actual USMC practices regarding human emotional considerations. Additionally, the academic literature review identified and backed the importance of human emotion and its relationship to behavior, ultimately identifying story architecture as one possible mechanism with which to influence audience emotions. While numerous other recommendations can be provided to articulate emotional considerations, this thesis focused on story architecture due to its linear structure and the way in which it shares commonalities to linear planning processes existing within the Marine Corps. The provided recommendation of the ECPP is a proposed

solution to remedy the lack of emotional considerations in Marine Corps planning, specifically at the battalion-level units within a MEF.

B. FUTURE RESEARCH

OIE is a developing activity within the DOD supported by a nascent community of information professionals. Currently, there is still basic discussion amongst major stakeholders regarding how the definitive terms should be named. Thorough review and critique of OIE organizations and authorities is actively occurring to best identify the military's place and authority with *Information*. All of this is happening concurrently with the rapid development and distribution of information-sharing technology. The IoT is consistently growing, seeing social media and user-generated data rates climbing. In an effort to match the rate of increasing complexity of the Information Environment, the following suggested research efforts could prove beneficial in aiding the Marine Corps with maturing its Information community and identifying beneficial OIE efforts.

As a result of Joint and Marine Corps operations and planning processes research, it became apparent OIE considerations with regards to timeliness is a topic which needs more development. There are multiple time factors within both OIE and the Marine Corps Planning Process. Operations officers and staff are faced with a timeline associated to the physical acts of the planned military activity. Supply, logistics, funding, and manpower planning requirements have been dominant planning factors for years, often overshadowing OIE and any influence considerations.

Inspired by Everett Rogers' *Diffusion of Innovation* and the defined adopter categories, further research into more closely relating military OIE messages with the adopters would prove beneficial. Identifying and relating specific influence techniques to the five adopter categories would aid OIE professionals in building a standing repository of OIE conceptual knowledge which could serve as a planner's quick-reference guide.

I suggest researching timelines associated with measuring the rate at which specific messages and ideas are adopted by an audience. Analyze a construct of short, medium, and long-term messages and the USMC's need to have "canned" messages to use for short-

term application and quick-turn operations. Case studies and historical military and marketing campaigns can be analyzed to identify effective themes, tactics, target audience characteristics, and timelines. The Marine Corps Rapid Response Planning Process (R2P2) is a time constricted, condensed MCPP. Pre-approved standardized planning products are highly valuable to this process.

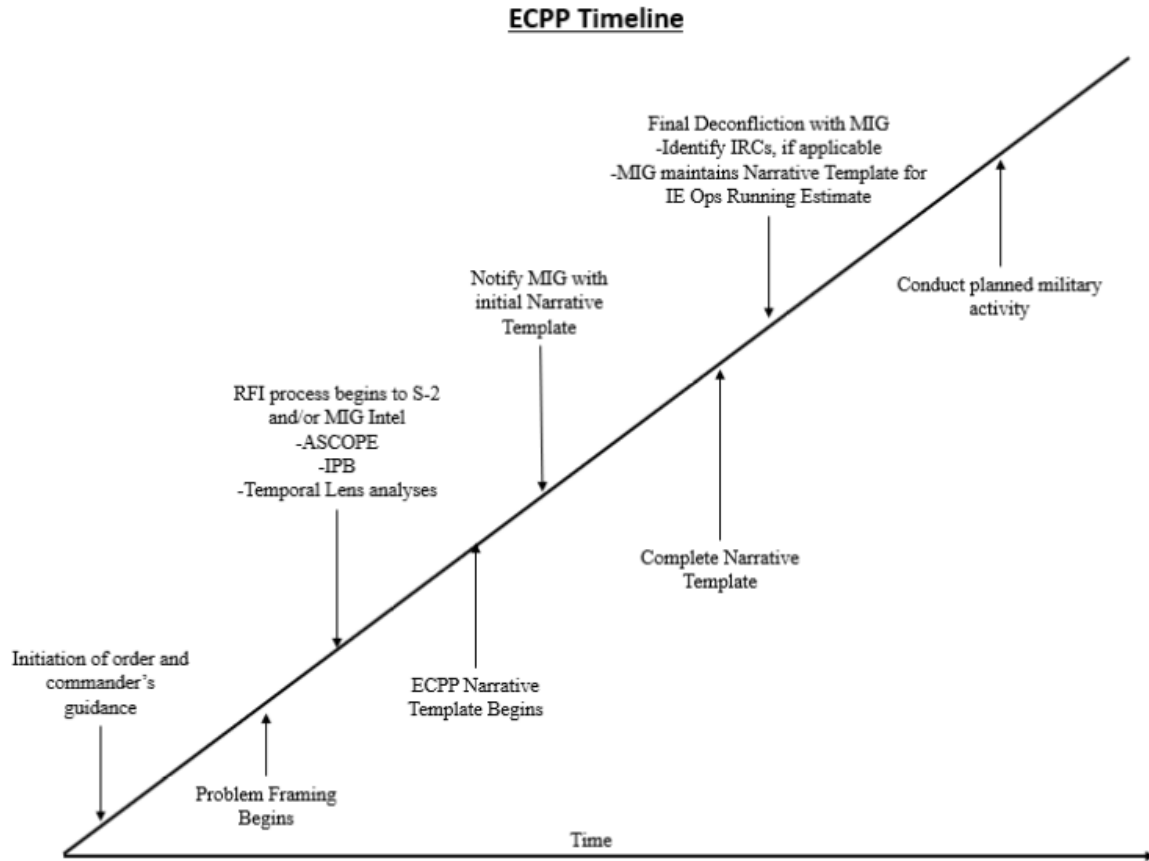
The Semi-Structured Discussion results identified many of the subject's units were regionally aligned in terms of whom they support and augment. Similarly, MEFs are regionally aligned and typically provide support to specific Combatant Commands. Target Audience Analysis was mentioned many times throughout this report. It is suggested to dedicate thesis research efforts into conducting in-depth TAA for specific MEF areas of operation. The three MIGs could provide sponsorship of this research, and similarly provide intelligence analysts to aid in this effort. Given the liaison with USMC intelligence equities, this thesis research would have the potential to be classified.

The Marine Corps possesses copious amounts of annual training requirements. MarineNet is the digital platform with which Marines conduct much of their annual training classes. Examples of these courses are the Uncle Sam's OPSEC course, Cyber Security, and Sexual Assault Prevention and Response. Additionally, Marines are required to complete the Physical Fitness Test and Combat Fitness Test, as well as fire on the rifle range yearly because, "Every Marines is a rifleman." These testing and educational requirements foster specific core values which are commonly held by all Marines. The same needs to be done in the current day and age of pervasive *information*. Research and design centered on building a Marine Corps annual training requirement focused on influence, perception management, and emotional management would prove highly beneficial to the Marine Corps. The end-state would be to foster a new, commonly accepted mentality making Marines more aware of the IE and how their specific actions generate impacts within it. As a secondary effect, the yearly training would help to build resiliency within the Marine Corps ranks against adversary OIE attempts.

The final research suggestion is to analyze the Expeditionary Advanced Base Operations (EABO) and Littoral Operations in a Contested Environment (LOCE) concepts

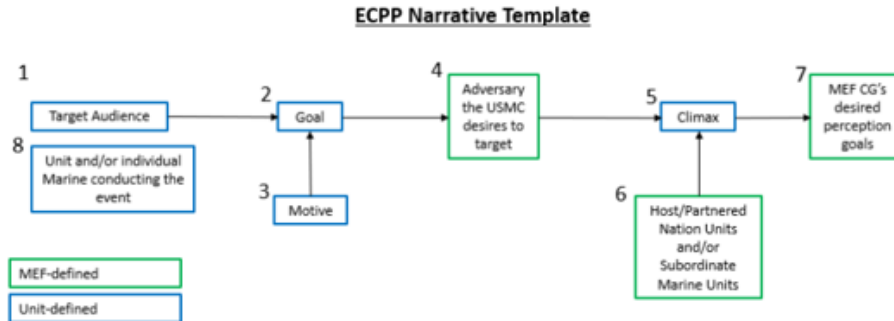
and identify Marine Corps OIE adjustments which will need to be made in order to best support the warfighter operating within those combat parameters. Small, disaggregated units operating and rapidly relocating and maneuvering within the enemy weapon engagement zone (WEZ) is a unique combat concept. USMC OIE efforts and application of IRCs will have new planning considerations which need to be identified and provided solutions.

APPENDIX A. PROPOSED EMOTION-CENTRIC PLANNING PROCESS TIMELINE



THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX B. PROPOSED EMOTION-CENTRIC PLANNING PROCESS NARRATIVE TEMPLATE



1. The Target Audience the unit is anticipating to have an IE effect upon. When completing the subsequent requirements, consideration should be given on how to appropriately communicate with the Target Audience given the amplifying information garnered from the IPB, ASCOPE, and Temporal Lens products.
2. The broadcasted goal of the unit's mission. What does the unit desire to achieve through the conduct of this military activity?
3. The explanation as to why the unit's goal is of importance.
4. When crafting the adversary category, this entity is defined competition of higher-headquarters. This can be conceptual, such as an issue within the Marine Corps regarding cultural deficiencies, or this can be a defined terrorist organization or nation the U.S. is in competition with.
5. The culminating event of the military activity intended to be viewed by the Target Audience.
6. Additional units or personnel higher-headquarters desires to build trust and gain favor with. This entity is intended to be projected as a valuable ally or competent supporter to higher-headquarters' cause.
7. The resolution to the unit's activity; ultimately leading to the accomplishment of the MEF CG's perception management goals.
8. The unit conducting the military activity. The narrative will be told from the unit's perspective throughout the conduct of the activity.

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF REFERENCES

- Berger, David. *38th Commandant's Planning Guidance*. Arlington, VA: United States Marine Corps, 2019.
- Cialdini, Robert. *Influence: The Psychology of Persuasion*. New York: Harper Business, 2006.
- Department of Defense. *Summary of the 2018 National Defense Strategy of the United States of America*. Washington, DC: Department of Defense, 2018.
<https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>.
- Department of the Navy. *Marine Air-Ground Task Force Information Operations*. MCWP 3-32. Washington, DC: Headquarters United States Marine Corps, 2018.
- Department of the Navy. *Marine Corps Planning Process*. MCWP 5-10. Washington, DC: Headquarters United States Marine Corps, 2016.
- Department of the Navy. *Warfighting*. MCDP 1. Washington, DC: Headquarters United States Marine Corps, 1997.
- Deputy Commandant for Combat Development and Integration. *Marine Air Ground Task Force Information Environment Operations Concept of Employment*. Arlington, VA: Headquarters United States Marine Corps, 2017. <https://www.quantico.marines.mil/Portals/147/Docs/MCIIOC/IORecruiting/MarineCorpsOperatingConceptforIO.pdf>.
- Deputy Commandant for Combat Development and Integration. *Marine Corps Operating Concept for Information Operations*. Arlington, VA: Headquarters United States Marine Corps, 2013. <https://www.trngcmd.marines.mil/Portals/207/Docs/wtbn/MCCMOS/FINAL%20MAGTF%20IE%20OPS%20CoE%202017-07-06.pdf?ver=2017-11-16-090225-057>.
- Future of StoryTelling. October 3, 2012. "Empathy, Neurochemistry, and the Dramatic Arc: Paul Zak at the Future of StoryTelling 2012." YouTube video, 5:58.
<https://www.youtube.com/watch?v=q1a7tiA1Qzo&t=99s>.
- Haven, Kendall. *Story Proof: The Science Behind the Startling Power of Story*. Westport, Connecticut: Libraries Unlimited, 2007.

- Haven, Kendall. *Story Smart: Using the Science of Story to Persuade, Influence, Inspire, and Teach*. Santa Barbara, California: Libraries Unlimited, 2014.
- Joint Chiefs of Staff. *Competition Continuum*. Joint Doctrine Note 1-19. Washington, DC: Joint Chiefs of Staff, 2019. https://www.jcs.mil/Portals/36/Documents/Doctrine/jdn_jg/jdn1_19.pdf.
- Joint Chiefs of Staff. *Information Operations*. JP 3-13. Washington, DC: Joint Chiefs of Staff, 2014. https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3_13.pdf.
- Joint Chiefs of Staff. *Joint Operations*. JP 3-0. Washington, DC: Joint Chiefs of Staff, 2018. <https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp30ch1.pdf?ver=2018-11-27-160457-910>.
- Joint Chiefs of Staff. *Joint Concept for Human Aspects of Military Operations (JC-HAMO)*. Washington, DC: Joint Chiefs of Staff, 2016. <https://nsiteam.com/social/wp-content/uploads/2017/01/20161019-Joint-Concept-for-Human-Aspects-of-Military-Operations-Signed-by-VCJCS.pdf>.
- Joint Chiefs of Staff. *Joint Concept for Operating in the Information Environment (JCOIE)*. Washington, DC: Joint Chiefs of Staff, 2018. https://www.jcs.mil/Portals/36/Documents/Doctrine/concepts/joint_concepts_jcoie.pdf.
- Joint Chiefs of Staff. *Joint Planning*. JP 5-0. Washington, DC: Joint Chiefs of Staff, 2020. https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp5_0.pdf?ver=us_fQ_pGS_u65ateysmAng%3D%3D.
- Joint Chiefs of Staff. *Military Information Support Operations*. JP 3-13.2. Washington, DC: Joint Chiefs of Staff, 2014. https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3_13.pdf.
- Lerner, Jennifer, and Li, Ye, and Valdesolo, Piercarlo, and Kassam, Karim. "Emotion and Decision Making." *Annual Review of Psychology* 66 (January 2015): 799-823. <https://www.annualreviews.org/doi/full/10.1146/annurev-psych-010213-115043>.
- Mattis, James. "Information as a Joint Function." Official Memorandum. Washington, DC: Department of Defense, 2017. https://www.rmda.army.mil/records-management/docs/SECDEF-Endorsement_Information_Joint%20Function_Clean.pdf.
- Neller, Robert. *Marine Corps Bulletin 5400*. Washington, DC. United States Marine Corps, 2019. <https://www.marines.mil/Portals/1/Publications/MCBUL%205400.pdf?ver=2019-02-06-082807-103>.

Pratkanis, Anthony, and Elliot Aronson. *Age of Propaganda: The Everyday Use and Abuse of Persuasion*. Revised Edition. New York: Holt Paperbacks, 2001.

Rogers, Everett. *Diffusion of Innovations*. 5th Edition. New York: Free Press, 2003.

White House. *National Security Strategy of the United States of America*. Washington, DC: White House, 2017. <https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf>.

Zak, Paul. "How Stories Change the Brain." *Greater Good Magazine*, December 17, 2013. https://greatergood.berkeley.edu/article/item/how_stories_change_brain.

THIS PAGE INTENTIONALLY LEFT BLANK

INITIAL DISTRIBUTION LIST

1. Defense Technical Information Center
Ft. Belvoir, Virginia
2. Dudley Knox Library
Naval Postgraduate School
Monterey, California